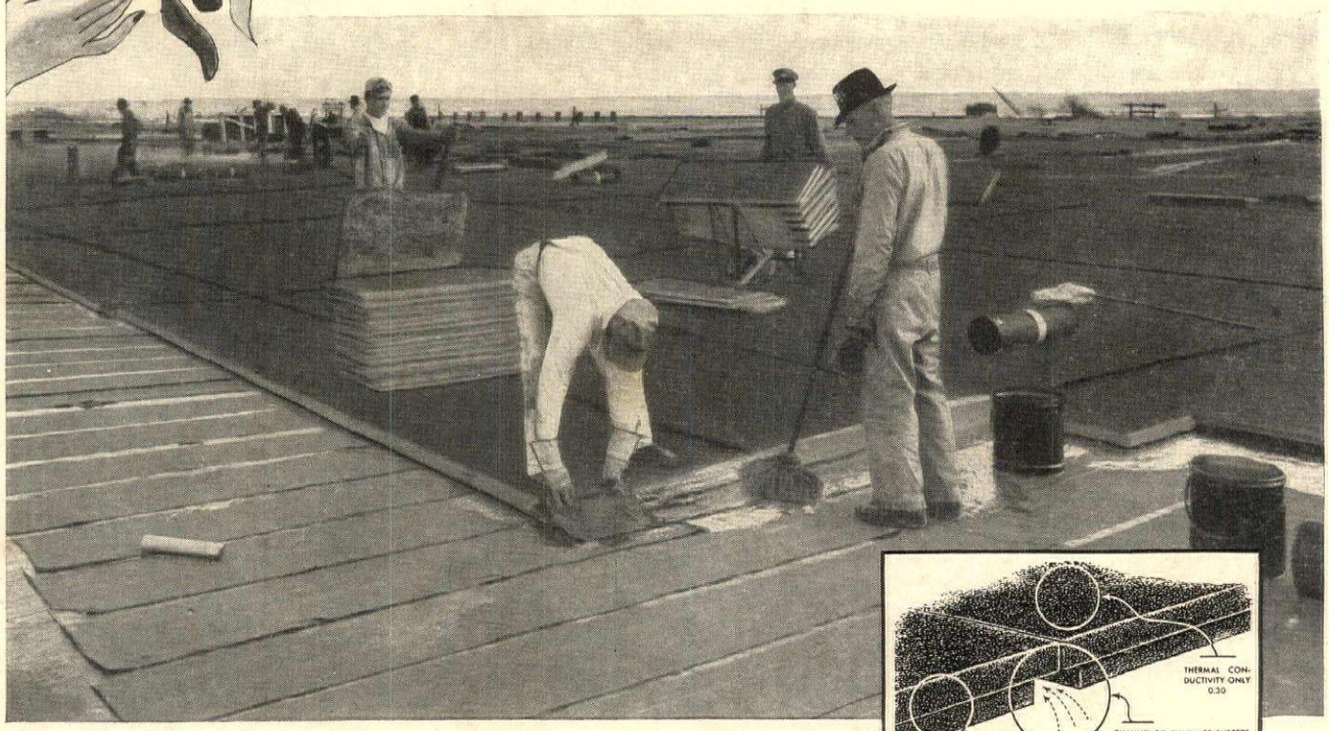
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THE ARCHITECTURAL FORUM

APRIL 1942

"From the Board of Directors to Architect Ambrose"



. . . "Because he specified the CELOTEX VAPOR-SEAL ROOF INSULATION *which has helped accelerate our war production*"

THIS ORCHID might have been presented to any one of many architects—by any one of many boards of directors up and down the land. Because this photograph shows *only one of many vast war industry plants* where Celotex Vapor-seal Roof Insulation is accelerating production—through temperature and humidity control.

Records show radically *reduced air-conditioning costs* in plants using Celotex Vapor-seal Roof Insulation. And, in the northern states, it aids amazingly in fuel conservation, important in war time.

If industrial atmospheric control forms any part of your current problems, let us send you latest specifications on this thoroughly tested roof insulation which is (1) *readily available NOW,* (2) able to compete in efficiency with any other type of rigid roof insulation, since its thermal conductivity is 0.30 Btu, (3) permanently protected against termites and dry rot by the exclusive, patented Ferox Process. Write today!

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The word Celotex is a brand name identifying a group of products marketed by The Celotex Corporation

Sales Distributors Throughout the World

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ARCHITECTURAL FORUM

APRIL 1942

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VOLUME 76—NUMBER FOUR

Building Reporter

For additional information on any product described in this section, write direct to the manufacturer.

LUMINOUS PAINT, developed for black-out use, regenerates itself on exposure to light.

Name: Durad Luminous Paint.
Purpose: To render objects visible in the dark.
Features: Unlike the radio-active finishes commonly used on watch dials, this paint owes its luminosity to a substance which re-radiates light. It contains no toxic materials. After a few minutes' exposure to either artificial or daylight, it glows for about 20 hours. Re-exposure permits repeat performances. The paint must be used over a special primer and thinned out with a special thinner, both of which are supplied. One thick coat, or, preferably, several thin coats, will produce a flat white finish suitable for indoor service. For a glossy finish, or for outdoor service, a special clear topcoat must be used. Each coat dries in from 1 to 4 hours.
Manufacturer: Maas & Waldstein Co., 438 Riverside Ave., Newark, N. J.

LETTERING MACHINE. Specifications can be typed on drawings eight times faster than with hand-lettering.



Name: Engineering Model Vari-Typer.
Purpose: To speed the lettering of instructions, dimensions, specifications, other data, on working drawings and tracings from which blueprints are made.
Features: This machine operates essentially like an ordinary typewriter, except that it uses a typewheel instead of letters and symbols on single type bars. Changing the typewheel permits use of a variety of styles and sizes of alphabets. Spacing is also variable. A basket-type carriage with open ends makes the machine adaptable to sheets of tracing paper and cloth up to 20 ft. in length. In half a day a typist can turn out the work that would require a draftsman four or five days to do by hand-lettering.
Manufacturer: Ralph C. Coxhead Corp., 333 Sixth Ave., New York, N. Y.

THEATER CHAIR. New design uses 75% less critical materials, wins WPB approval.



Name: Victory Chair.
Purpose: For use in movie theaters.
Features: Not only does this chair save metal in its own construction, it also lays claim to a considerable saving of metal taken in salvage when old outworn theater chairs are replaced. Last month it was demonstrated to Washington authorities, who gave it their immediate blessing (see cut). Built of plywood and other materials reenforced by metal, fully upholstered in a variety of designs and color combinations, it is being put into production in limited quantites at once.
Manufacturer: American Seating Co., Grand Rapids, Mich.

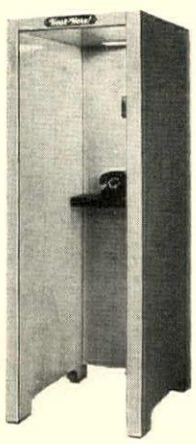
GLASS COATING. Transparent plastic film prevents damage from flying glass.

Name: Shattergard.
Purpose: To overcome the hazards of flying glass during air raids and bombardments.
Features: A tough, elastic, transparent plastic, this coating is applied in liquid form directly to the window surfaces, inside and out, with an ordinary paint brush or spray gun. It dries in about an hour to form a clear, waterproof, washable film which 1) reenforces the glass against blast and concussion, 2) prevents glass splinters from flying should breakage occur. Two coatings are recommended by the manufacturer. Cost: a little over 2 cents a square foot of glass.
Manufacturer: Shattergard Corp., 190 Nineteenth Ave., Paterson, N. J.

CAMOUFLAGE PAINT breaks up light rays, prevents telltale outside glare from windows under moonlight or flares.

Name: VD (for Visual Deception) Glaze.
Purpose: To deaden specular reflection from windows and other mirror-like surfaces (steel, terra cotta, paint, so on).
Features: Product is available either in a clear white translucency or in tints which simulate standard Army camouflage colors. Daylight is admitted, yet, when viewed from the outside, treated glass looks opaque. Colors can be selected to conform with the building's general camouflage, thus permitting the windows to become inconspicuous parts of surrounding wall or roof areas. Incidental peacetime virtue is the reduction of room temperatures when applied to windows on southern exposures where sunlight is excessive.
Manufacturer: The Truscon Laboratories, Detroit, Mich.

DOORLESS PHONE BOOTH redesigned to eliminate use of critical materials.



Name: Model 207 Burgess Acousti-Booth.
Purpose: To provide a "zone of quiet" for telephone users in factories, power houses, other noisy industrial locations.
Features: In place of steel, this new model uses heavy reenforced birch plywood. Thus it can now be obtained without priorities. Walls and ceiling consist of perforated panels filled with a thick blanket of sound-absorbent material. These acoustic panels blot up stray noise so completely that any need for a door is overcome. The doorless construction in turn allows better ventilation than in ordinary enclosed booths. A shelf holds the telephone, facilitates taking notes. Overhead electric light fixture with pull-chain provides ample illumination. Outside dimensions: 30 x 79½ x 38 in.
Manufacturer: Burgess Battery Co., Acoustic Div., 2815 West Roscoe St., Chicago, Ill.

(Continued on page 46)

Easy to install—just cut, apply and staple

MASONITE*

CELL-U-BLANKET*

LIGHT, STURDY CELL-U-FOAM INSULATION IN BLANKET FORM

MASONITE Cell-U-Blanket is a flexible blanket-type insulation with a core of Cellufoam, today's most sensational insulating material. It is designed primarily for application to studs, joists and rafters, as shown at right.

Properly applied, Masonite Cell-U-Blanket provides a positive vapor barrier. It is water and wind proof. It is a permanent insulation material that will not shrink, sag or settle. It is so light in weight that a *De Luxe* roll, sufficient to cover 125 square feet of area, weighs less than 30 lbs. It is termite-treated, mould-proofed, rot-proofed. Authoritative tests show that the heat transmission or "U" factor of *De Luxe Silver Sheen* Cell-U-Blanket is 0.157 B.T.U.s per hr. per sq. ft. per degree F. of temperature difference.

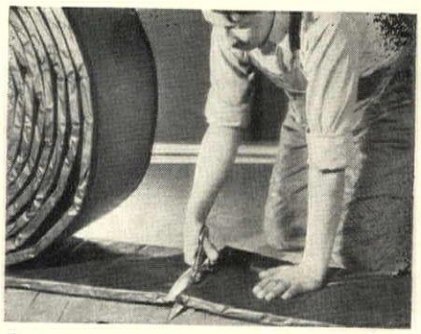
- ***TWO TYPES***—There's *Standard* Masonite Cell-U-Blanket, with sturdy asphalt-impregnated coverings on both sides.

  And there's *Silver Sheen* Masonite Cell-U-Blanket, with a non-metallic reflective surface on the flange side.

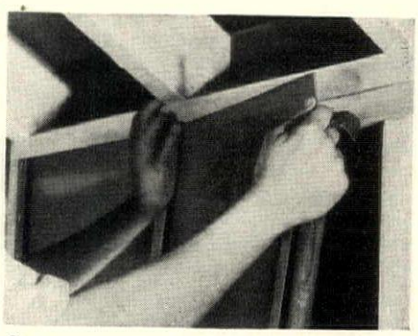
- ***THREE THICKNESSES***—*Utility*—approximately ½". *Efficiency*—approximately ¾". *De Luxe*—approximately 1".

- ***SIX WIDTHS***—For studs, joists and rafters on 12, 16, 20 and 24 inch centers. Also in 33 and 38 inch widths on special order.

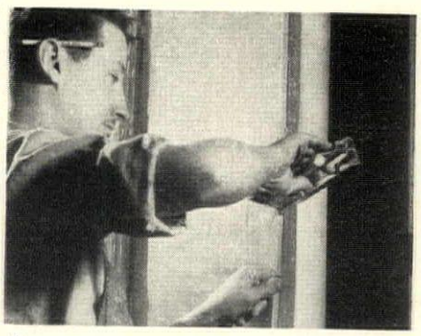
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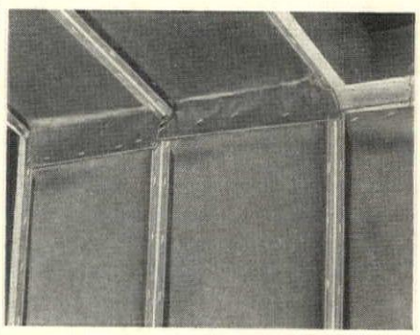
1. Cut Masonite Cell-U-Blanket 3½ inches longer than the dimension between top and bottom plates, using sturdy scissors or snips.



2. Then cut casing approximately 2 inches on both sides, fold back the Cellufoam core. Apply by stapling vapor barrier flange to face of plate.



3. For side-wall insulation, staple flange of Masonite Cell-U-Blanket to face of studs, using ¼-inch-long staples spaced not more than 6 inches o.c.



4. Allow vapor barrier flaps of Cell-U-Blanket to overlap at plates or headers. Staple flanges securely to insure continuous vapor barrier.

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Dept. AF-4, Cellufoam Products Div.
111 W. Washington St., Chicago, Ill.

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*Name*_____ *Address*_____

*City*_____ *State*_____

THE ARCHITECTURAL FORUM

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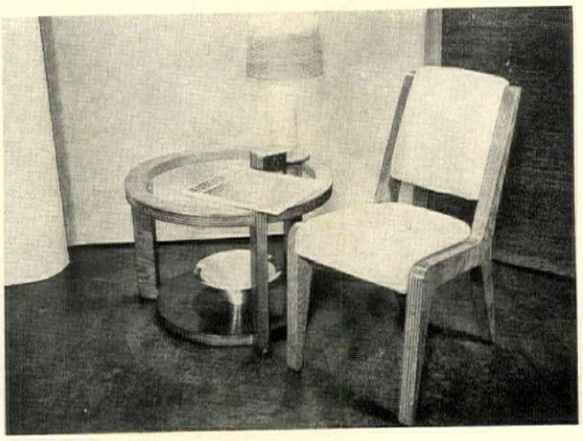
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VOLUME 76 Number 4

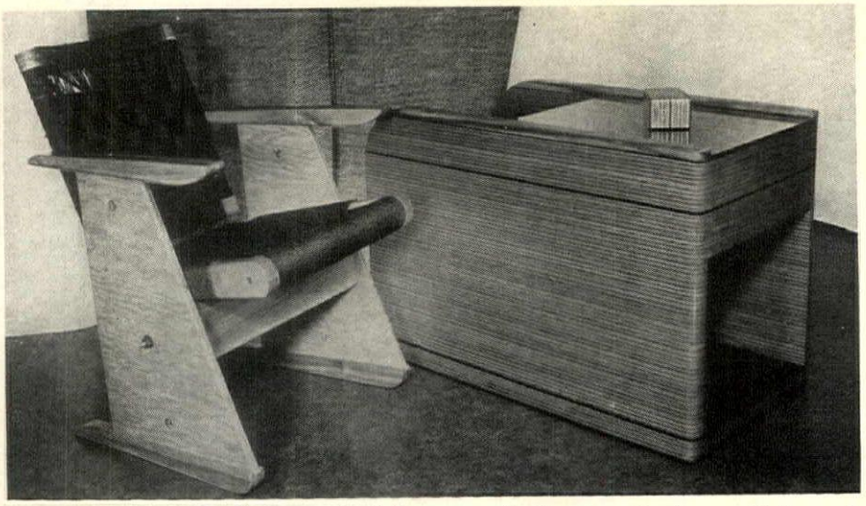
FORUM OF EVENTS

GODES FOR NEWFOUNDLAND

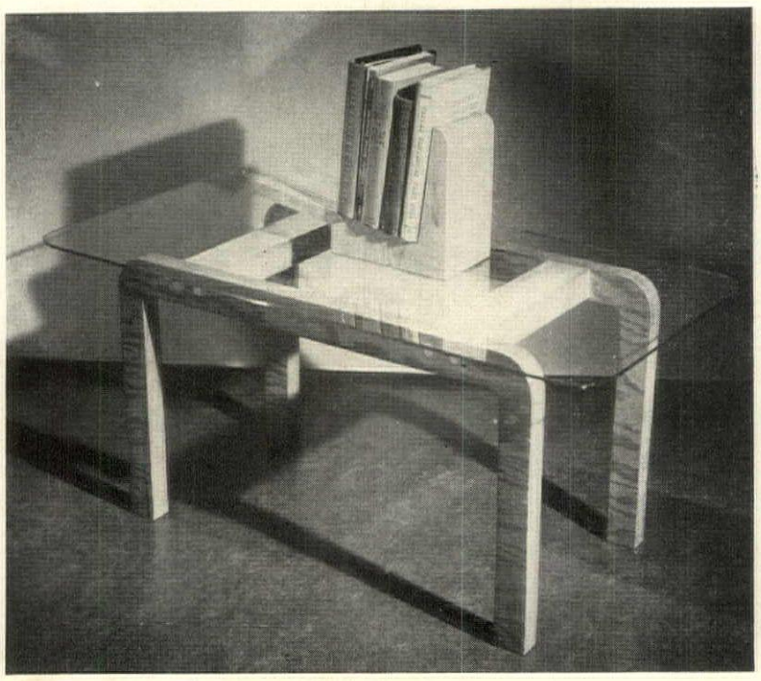
Visitors to Newfoundland these days are likely to run into some shop, sooner or later, that carries furniture and accessories trademarked "Godes." The name means "good design" and the furniture means that the Newfoundland Government is making a vigorous, intelligent effort to develop small industries for its population. Sparkplug of the movement is Jules Gottschalk, young U. S. industrial designer, whose impressive title is "Chief Technical Adviser for Arts and Designs for the Department of Agriculture and Rural Reconstruction." Some of Adviser Gottschalk's productions are shown here. They are characterized by bold use of laminated veneers (Newfoundland trees are small, make better veneers than lumber), simplicity of assembly, and use of every square inch of each laminated board. Not shown is the major Gottschalk production: a trained and expanding group of young Newfoundland designers who have dedicated their talents to the creation of a native industry and home-grown art.

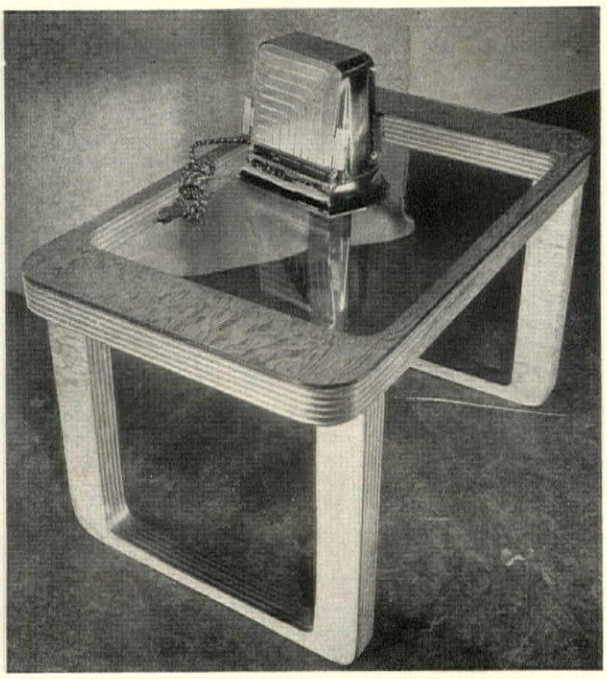






Official names of the chairs at the left and directly above are "fanny support" and "sitting machine." The radio cabinet above is made entirely of laminated wood; the cigarette box on it is made from scrap. Fabrics are Newfoundland-made and colored with vegetable dyes. Note the one-piece book end below.





FORMICA *Goes to* WAR!

JUST as Formica Building and Furniture Sheet was a widely used material for many civilian purposes, it has found useful work to do also in the war effort.

Dining rooms in many new army and navy hospitals are equipped with Formica table tops; so are cafeterias in hundreds of the new war industry plants that have been erected for the production of airplanes, tanks and guns.

Bedroom furniture—bedside table tops, overbed tops in hospitals are being furnished with Formica tops, and many of the bright new soda fountains installed on naval ships, and in U. S. O. canteens will be made with Formica counters.

Formica won its place for these uses because it is sturdy, spot proof, unusually resistant to difficult conditions of wear and service. Let us send you literature with color charts and suggestions for methods of application.

THE FORMICA INSULATION COMPANY
4620 Spring Grove Ave., Cincinnati, Ohio

FORMICA



★ TABLE TOPS IN RESTAURANTS



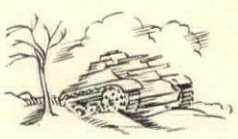
★ TABLE TOPS IN SHIPS



★ HOSPITAL EQUIPMENT



★ USO AND NAVY SODA FOUNTAINS



★ **FORMICA FOR DEFENSE** ★

In addition to Formica Building and Furniture sheet, Formica Electrical and Mechanical grades are being widely used for war purposes. Airplanes are equipped with Formica control pulleys, fairlead bushings, instrument panel boards, and many machined parts. Ignition systems for internal combustion engines of all types are made with Formica insulating parts. Radio and communications systems are insulated with Formica.



Be sure you know what you're getting when you pick a paint today...



DO you realize that on defense houses, where costs are strictly limited, you can have all the advantages of pure white lead paint—and still keep within your budget?

The fact is, and you can easily verify it, white lead costs no more than regular quality paints.

In addition to its low initial cost, good painters will tell you pure white lead paint has no superior for long, slow, even wear—and generations of experience prove it.

You see, white lead is made from one of the most durable of metals—lead. Like lead, it resists time and wear. It gives paint backbone and elasticity; prevents cracking and scaling under severest weathering.

Knowing this, it's easy to understand why white lead paint is the best protection against years of summer heat and winter cold—why it keeps its looks and guards the surface so long. It cuts painting costs by spreading them over extra years. This conserves materials, too—important these days.

And when you specify white lead you have the satisfaction of knowing that its enduring beauty and the lasting protection it gives your work make it one case where the best is truly cheapest.

LEAD INDUSTRIES ASSOCIATION
420 Lexington Avenue, New York, N. Y.



ARMORED WITH WHITE LEAD PAINT—New low-cost defense housing in Hartford, Conn. White lead paint is lending beauty and permanence to countless developments like this.

FREE GUIDE TO BETTER PAINTING—
Send today for valuable booklet



"WHAT TO EXPECT FROM WHITE LEAD PAINT" *containing complete information about low-cost quality painting on all types of surfaces.*

INFORMATION FOR ARCHITECTS—Pure white lead is sold by paint stores in two different forms: (1) as a paste, commonly known as "lead in oil," for use by painters and decorators in mixing their pure white lead paint to order for each job; (2) as pure white lead paint in ready-to-use form, in popular-size containers. Remember you are not confined just to white—white lead can be tinted to a wide range of colors.

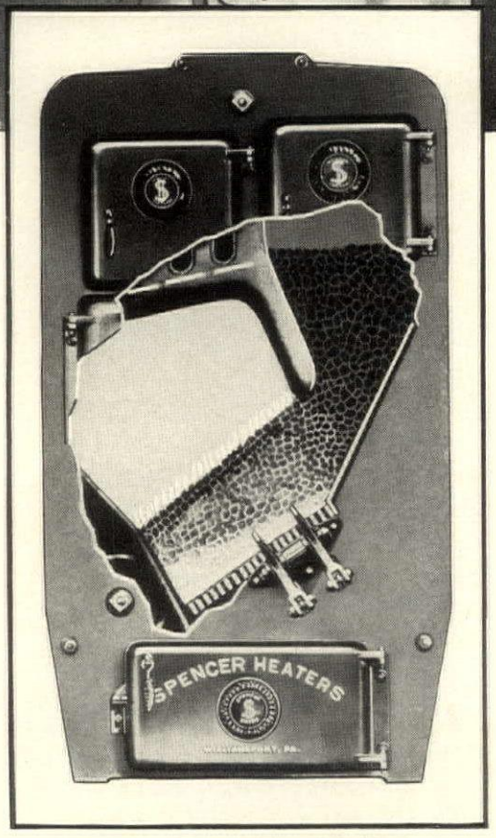
White lead is also the backbone of other quality paints. In specifying exterior paint it is a safe rule to follow: *"the higher the lead content, the better the paint."*



You're money ahead when you paint with **White Lead**

Your Part with her men on "3 Shifts a Day" don't let her burden grow –





Give Her 24 Hour Heating Comfort and Complete Relaxation from "Furnace Tending."

You can do it—and cut her fuel bills too by specifying that justly famous Spencer Magazine Feed Heater. It automatically stokes the fire with small size, low cost Anthracite or coke without motors or moving parts. On other types of jobs remember that Spencer has a special boiler for every purpose—a size and type for every building and for every fuel. There's the big steel tubular "A" sized up to 42,500 feet, the "K" Series for small, defense-housing needs, and the "C" Series for larger homes.

SPENCER HEATER
Division — The Aviation Corporation
Williamsport, Pa.

SPENCER BOILERS

Our Part PLEDGED TO THE CONTINUANCE OF **SPENCER STANDARDS** FOR YOUR PROTECTION

STANFORD WHITE AGAIN

After Stanford White's death in 1906, his already considerable fame grew until he became almost a symbol of his sentimental and unattractive period. There developed the theory of the "American Renaissance", with White and his partners as its leaders. New York, Boston and other cities took pride in the possession of examples of his work. And then, only a few years later, these buildings began to go, making way for bigger and more profitable structures. To commemorate White's part in building the city, the Museum of the City of New York is now running a show, including many examples that have been destroyed. But there is no "American Renaissance" here, merely the picture of a period without parallel in history for gaudy pretentiousness, bad taste and lack of integrity. It was Stanford White's misfortune that no man can be bigger than his time, for it was his great vigor and talent that gave the period its final, and most powerful expression.



Work Projects Administration

Above, a rendering of the old New York Herald building, now demolished. Left and below, two interiors of Stanford White's own house, an interesting expression of his characteristic dislike for plain surfaces.



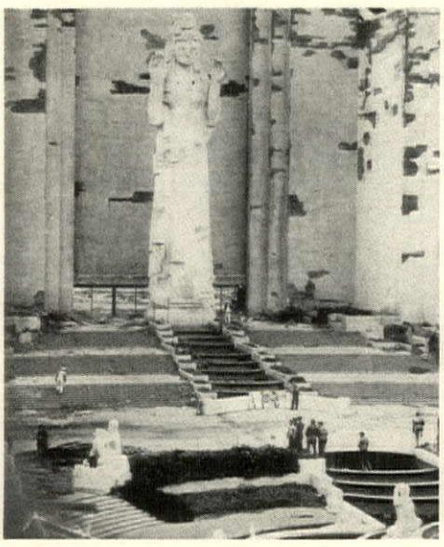
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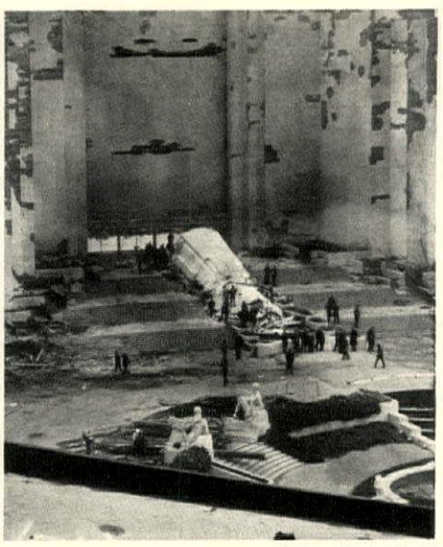
W P A

PACIFICA DOWN

Pacifica, one of the relics of the San Francisco Fair of 1939, is down, but according to the latest press releases, she is not out. Sculptor Ralph Satckpole is to do a permanent figure which will be set up near the Fair site after the war.

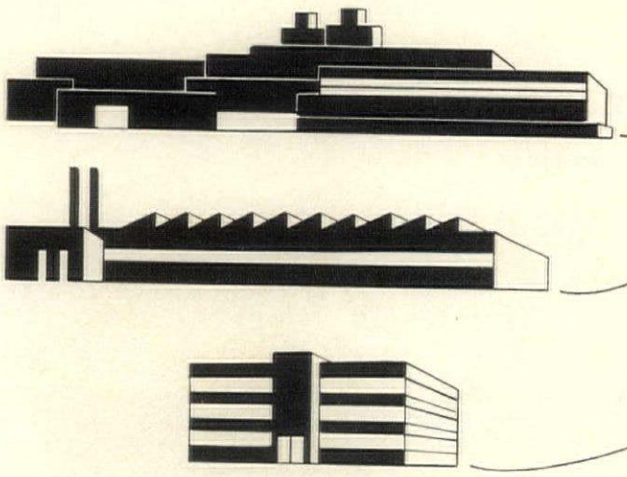


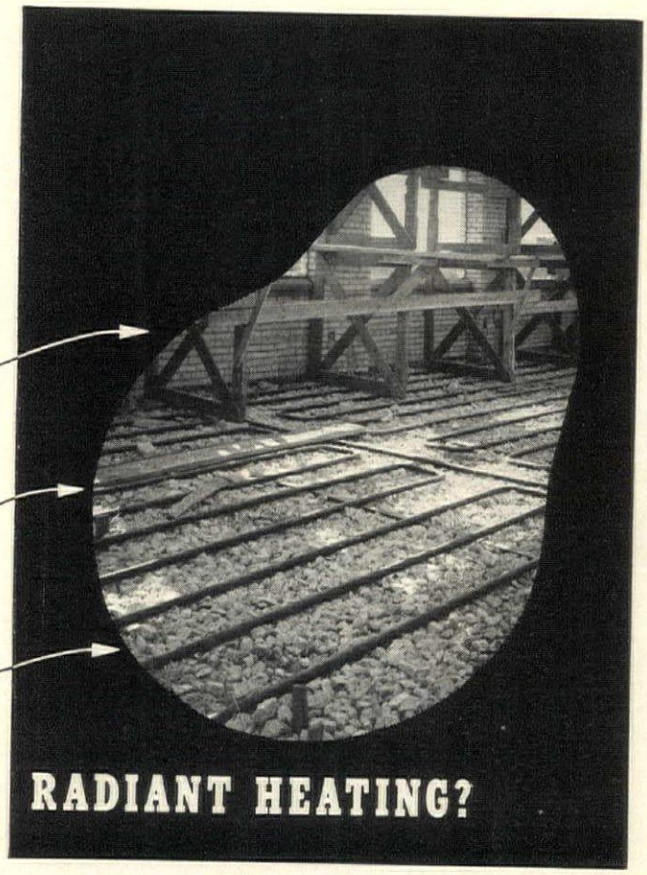




Photos, Wide World

Where specialized construction
brings
special heating problems . . .





Have you thought of RADIANT HEATING?

Designing the countless specialized buildings needed to house all the varied activities of a nation at war brings the architect a new set of complex problems. They cannot be solved by a mere extension of past experience, but require pioneer thinking. They cannot be checked against the old-fashioned dollar yard-stick, but against a new one with time and material requirements as the unit of measure. This situation has intensified interest in *Radiant Heating.*

WHAT ABOUT MATERIALS? Of the practical and available systems, Radiant Heating is unusually economical in its material needs. A recent check on metal requirements for a specific heating installation showed required weight of 850 pounds for the radiant heating piping (950-feet of ¾ inch pipe.) A conventional hot water system of equivalent heating effect would require 1700 lbs., and a 2-pipe steam system 1200 lbs. (Figures include supply and returns, but exclude boiler weight.) While this comparison covers a small structure, the figures are indicative.

WHAT ABOUT TIME? Speed of installation is a fundamental advantage of Radiant Heating. Pipe can be completely pre-formed into coil units, and assembled on the job with a few field welds. In floor-type systems, pouring of the concrete floor-slab and setting and connecting the boiler practically completes the heating installation.

WHAT ABOUT SPECIALIZED PROBLEMS? In some buildings, operations develop inflammable dust and no pockets or projections that would provide lodgment, and no elevated temperatures that might cause explosions, can be tolerated. In other buildings, the movement of materials demands 100% clear space, both on the floor and in the crane area. In still others, traffic flow requires the frequent opening of large doors, and heat that won't "blow away" is necessary. All these are typical of the specialized problems that emergency construction is creating . . . and that Radiant Heating can help solve.

WHAT ABOUT AVAILABILITY? Radiant Heating does not demand any compromise of sound engineering principles on the ground of expediency. For full quality and dependability, it requires only available materials. Byers Wrought Iron, because of its unusual combination of corrosion resistance, desirable thermal properties, and ease of fabrication, was the choice of careful engineers even when they had the whole world of metals to draw on.

Do you have our bulletin, "Byers Wrought Iron for Radiant Heating Installations"? It will help you to visualize the situations—whether in multiple family defense housing projects or in industrial plants—where Radiant Heating might solve a problem for you. May we send you a copy?

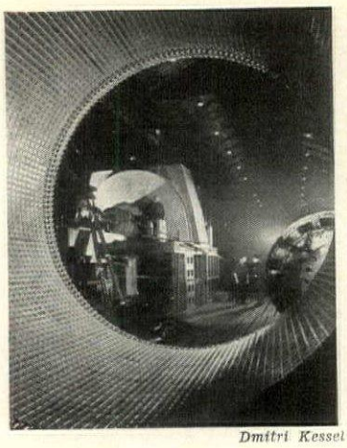
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IN CORROSIVE APPLICATIONS
CORROSION COSTS YOU MORE THAN WROUGHT IRON

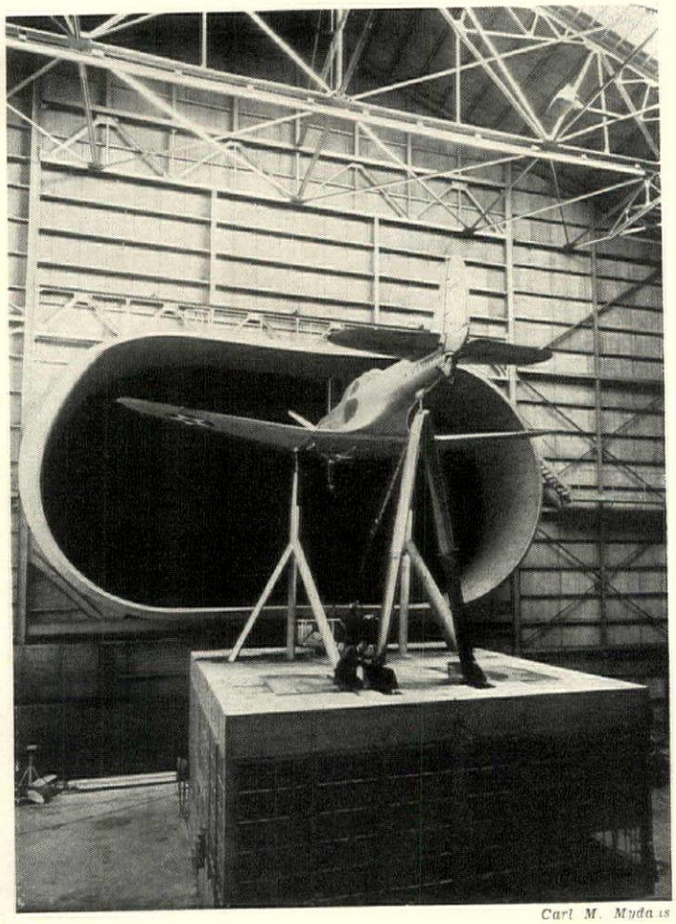
FORUM OF EVENTS

PATTERN FOR AIRPOWER

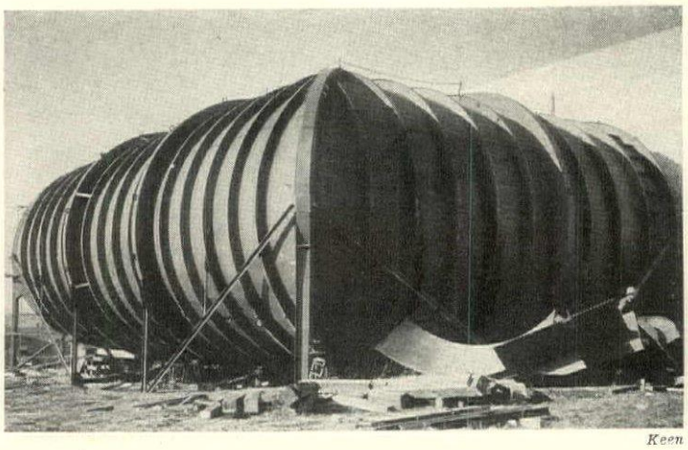


Dmitri Kessel

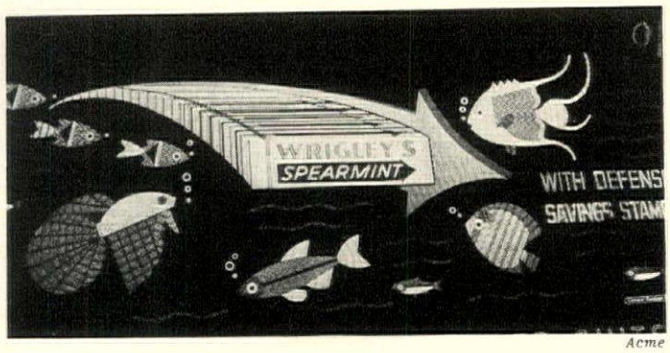
Such installations as the ever-expanding Army air laboratory at Wright Field may provide a field day for the photographer, but they are even more likely to become a headache for the Axis. Thousands of men in hundreds of acres of buildings are now developing the planes of the future, testing them (full size) in the wind tunnel shown. Left, inside the stator of one of the huge motor generators.



Carl M. Mydans

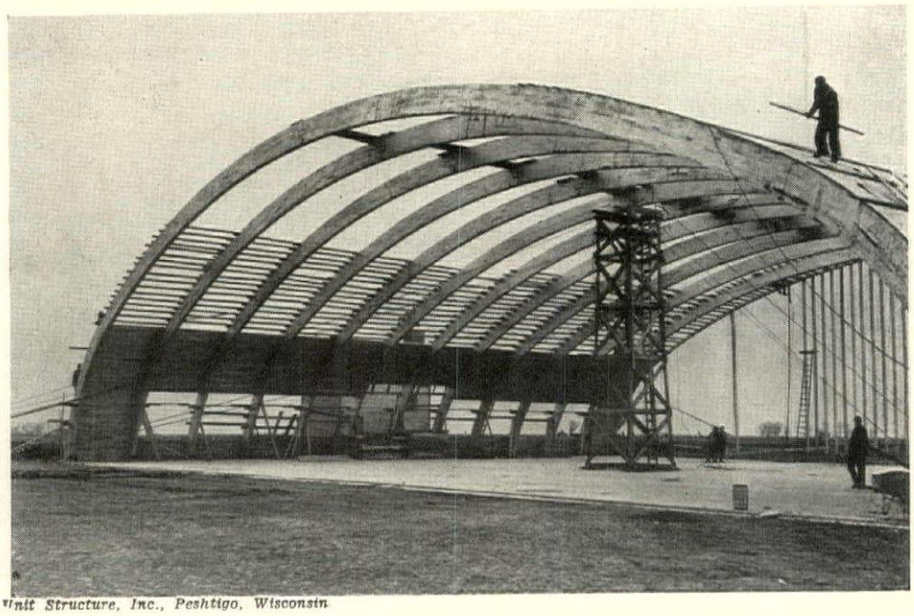


Keen



Acme

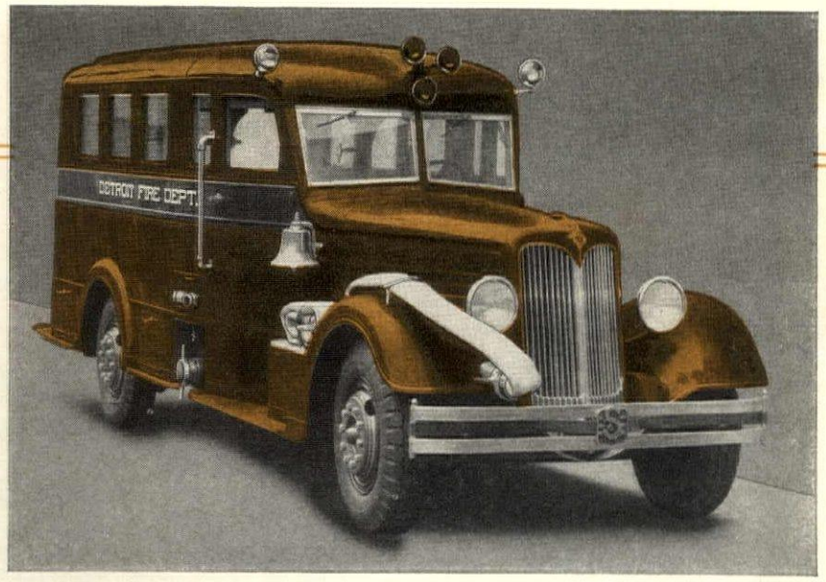
Blackout, power conservation and metal shortage are three reasons for the disappearance of the block-long Wrigley sign, first to leave New York's Times Square. Miles of copper wire and other critical materials have been salvaged.



Unit Structure, Inc., Peshtigo, Wisconsin

Longest wood arches ever built cover the Northwest Airlines hangar at Fargo, North Dakota. They are 152 feet long and contain 52,000 feet of lumber and three tons of glue. Invaluable at a time when every pound of steel saved brings us that much closer to the end of the war, such construction does not need emergency conditions to justify it, for it is economical, reasonably firesafe and extremely good looking. This hangar is large enough to take the 40-passenger DC-4 when this luxury airliner is released for use by commercial lines.

(Continued on page 66)



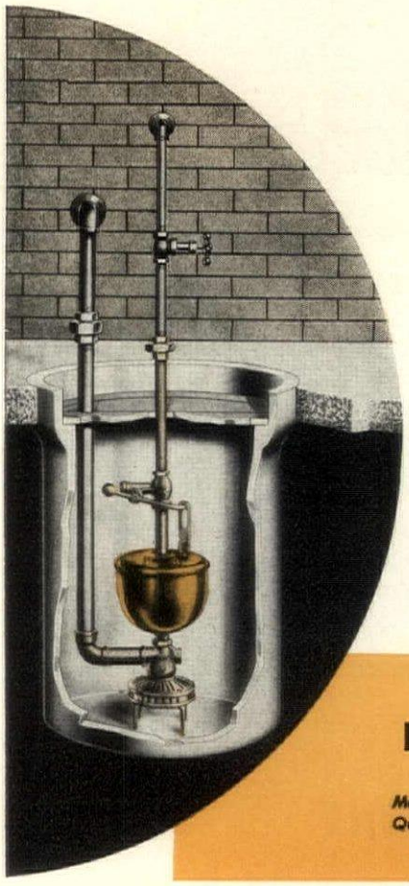
LIKE FIRE FIGHTING EQUIPMENT

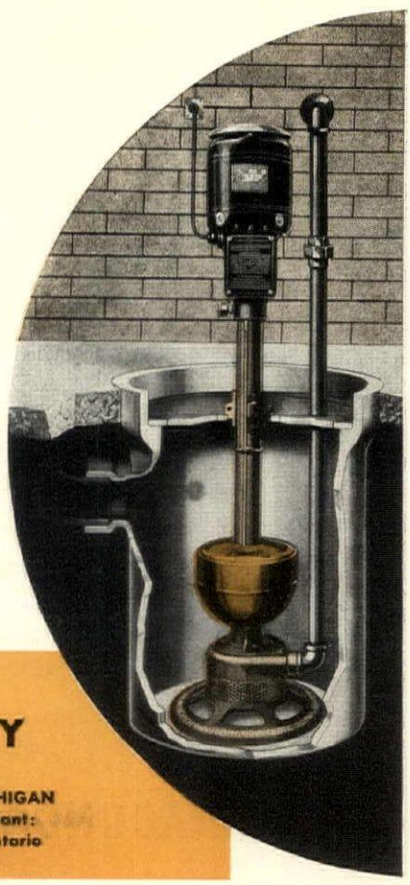
Penberthy Pumps Stand Idleness But Function Instantly When Needed

Fire fighting equipment, idle most of the time, must go into action instantly and must function perfectly for indefinite periods with no excuses accepted for failure. Sump pumps and Cellar Drainers meet much the same conditions. Idleness is often a more severe test than prolonged operation.

Penberthy Automatic Electric Sump Pumps and Water Operated Cellar Drainers stand idleness or peak operation equally well. Made of copper and bronze throughout, they are proof against corrosion. Simple, rugged design and careful workmanship assures complete reliability in operation.

Carried in stock by leading jobbers everywhere —Penberthy Sump Pumps and Cellar Drainers will give your clients complete satisfaction.





***PENBERTHY AUTOMATIC CELLAR DRAINER** (Water or Steam operated)*
Made in 6 sizes

PENBERTHY AUTOMATIC ELECTRIC SUMP PUMP
Made in 6 sizes

PENBERTHY INJECTOR COMPANY

Manufacturers of Quality Products Since 1886

PENBERTHY PRODUCTS

DETROIT, MICHIGAN
Canadian Plant:
Windsor, Ontario

Inner defense for war-vital plants



Rugged, reliable Anaconda electrical wires and cables, carriers of vital power, keep steady production in...shut-down losses out!

THERE's more to war than the equipping of bombers and battleships. The plants and shipyards that make them, the factories and mills turning out thousands of large and small parts, must be powered through wires and cables that can stand the pace of 3-shift operation.

Anaconda research has developed scores of product improvements and many completely new products that are today meeting these critical demands. They are fitted for the job . . . their improved constructions deliver greater capacities with less power loss, their insulations can withstand high heat, corrosion, abrasion.

The research that built these wires and cables continues at a fast pace. Now in addition to delving into experiments for improvements in industrial products, Anaconda is devoting much of its research to wiring for residential and commercial building.

When peace returns, adequate commercial and residential wiring will need your attention

The electrical future will place greater demands than ever before on those in a position to make wiring selections. Anaconda will cooperate with architects with information and with products measuring up to their specifications.

42227

ELECTRICAL WIRES AND CABLES OF COPPER ARE THE LIFE LINES OF OUR NATION

ANACONDA
from mine to consumer

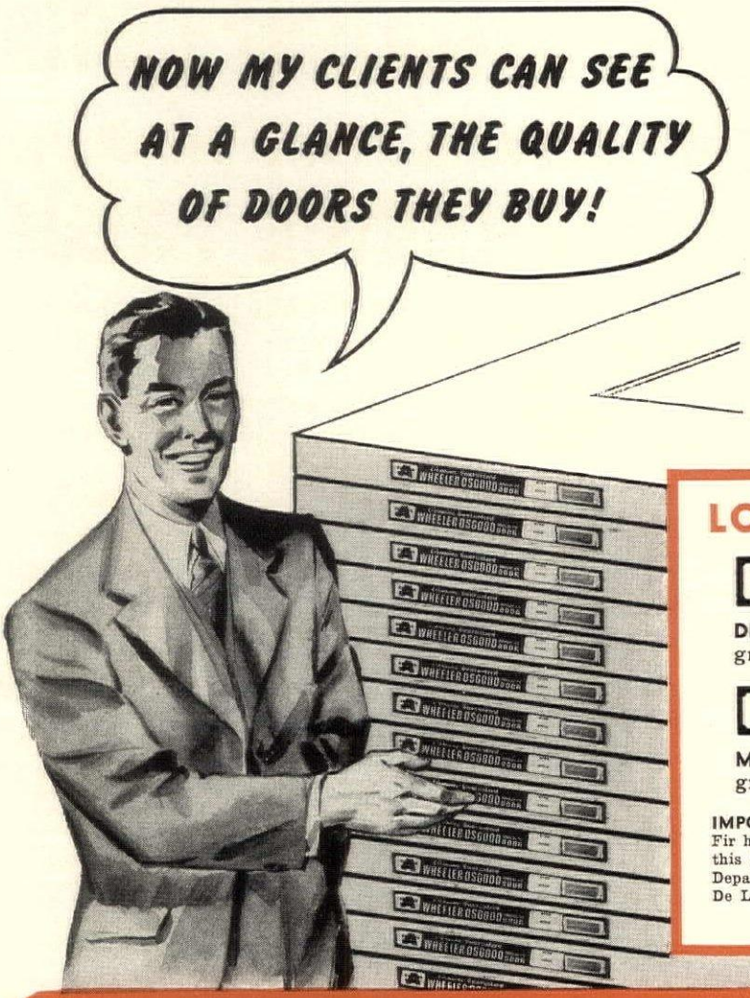
ANACONDA WIRE & CABLE COMPANY

Subsidiary of Anaconda Copper Mining Company

GENERAL OFFICES: 25 Broadway, New York City • CHICAGO OFFICE: 20 North Wacker Drive • Sales Offices in Principal Cities

America's Largest Door Manufacturer Introduces

A BRAND-NEW IDEA!



WHEELER OSGOOD "COLOR-GRADING" AIDS QUALITY DOOR SELECTION!

Wheeler Osgood, for over 52 years a leader in door manufacture, moves ahead in 1942 with an amazing new idea! To help you give clients tangible proof of value, to offer you new ease in the specification of quality interior and exterior doors, *every Grade A and Grade B Wheeler Osgood Door* is now "Color-Graded" with a special label securely attached to the bottom rail, as illustrated. Dramatizes quality! Invites comparison of features! Look for the guarantee!

FIR DOORS ARE FINEST!

Feature Fir! One of the world's finest woods for door manufacture! The Wheeler Osgood factory is located "next door" to the great Douglas Fir forests. Fir is uniform—super-strong—rot-proofed by nature—highly resistant to marring.

LOOK FOR THESE LABELS:



DE LUXE GRADE A—Bright blue label, bearing the grade, size, style, surface and *guarantee!*



MASTER GRADE B—Bright red label, bearing the grade, size, style and surface.

IMPORTANT! Wheeler Osgood "Color-Graded" Grade A and B Douglas Fir house doors, as well as many other designs of doors furnished by this pioneer firm, are built in strict accordance with United States Department of Commerce Standards CS73-38 and CS91-41. Every De Luxe Grade door backed by Wheeler Osgood's famous guarantee!

WHEELER OSGOOD DOORS



A COMPLETE LINE OF INTERIOR AND EXTERIOR DOORS

FREE

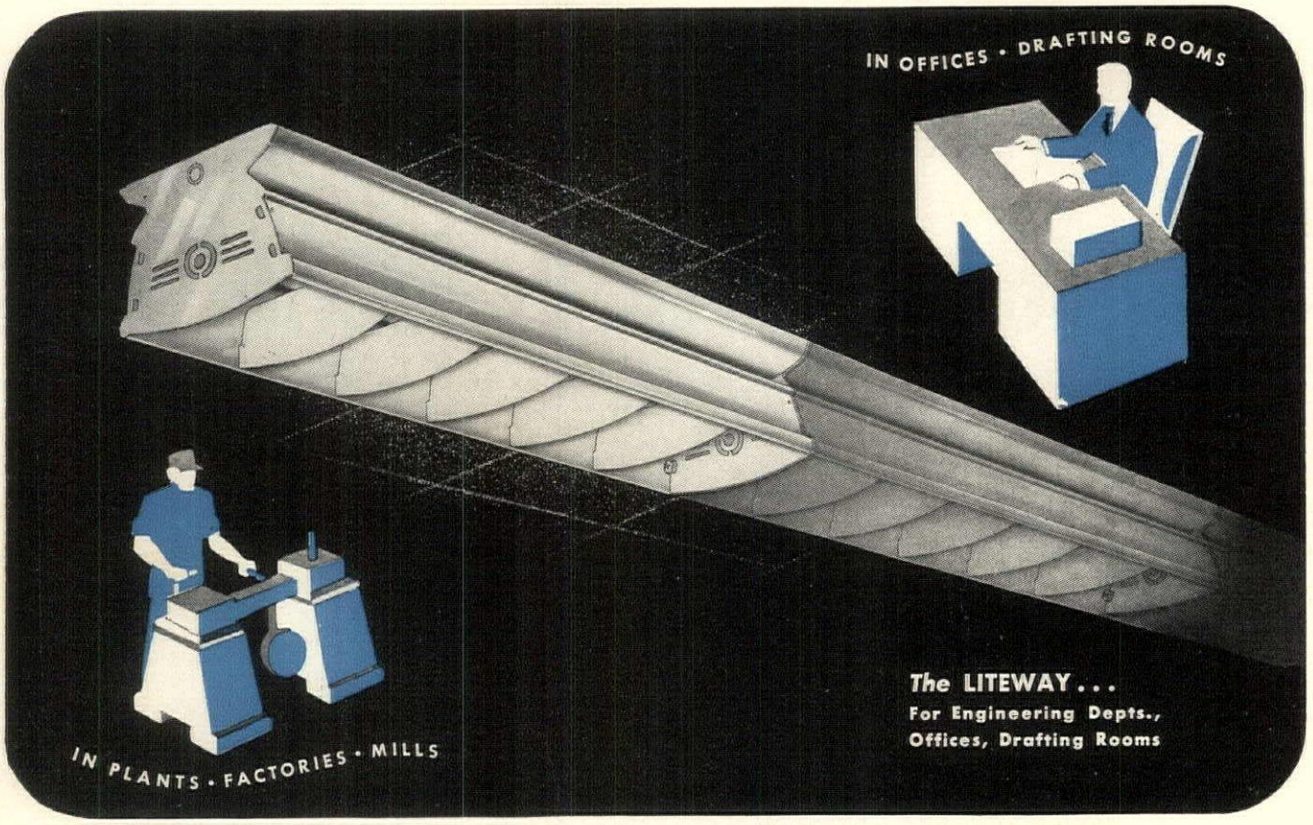
The Wheeler Osgood Sales Corporation
Dept. 10, Tacoma, Washington.

Gentlemen: Please send me free literature on Wheeler Osgood "Color-Graded" Fir Doors.

Name.....

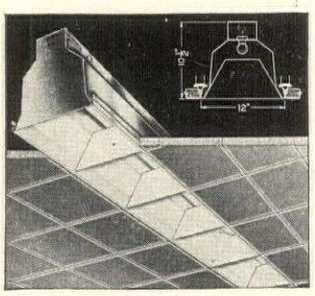
Address.....State.....

City.....



THERE CAN BE NO NIGHT ON THE HIGHWAY TO VICTORY!

MULTIPLY MAN HOURS by ADDING LIGHT HOURS



Cross-section and installation view of Day-Brite Continuous Single-row Louvered-type Troffer.

The extra man hours now so urgently needed—in offices, plants, factories, mills—can often be immediately provided by adding effective light hours with Day-Brite Fluorescent Fixtures.

Designed and engineered to utilize the best in fluorescent lighting, Day-Brite fixtures assure improved morale, higher visibility and less fatigue—make it easier to do more work more accurately, faster, with less spoilage, fewer rejects.

DAY-BRITE LIGHTING, INC., 5457 Bulwer Ave., St. Louis, Mo.

Widen all production bottlenecks with light . . . Speed the job with Day-Brite Fluorescent Fixtures —they add light hours that multiply man hours! Consult your local Day-Brite Representative.

DayBrite Rivals Daylight — Adds Defense Hours!

The **COMPLETE LINE OF FLUORESCENT LIGHTING FIXTURES**

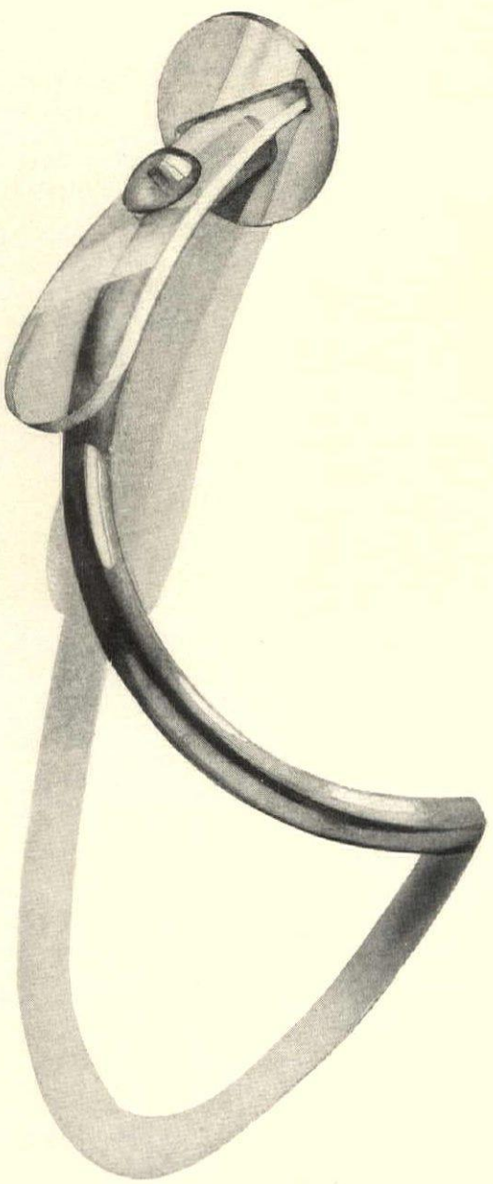
Nationally distributed through all leading electrical supply houses.

Day Brite Trade-Mark Registered
FLUORESCENT FIXTURES

41

"... an ugly doorknob made by hand is a regrettable incident, but a million vulgar doorknobs in use are a calamity."

DOUGLAS COCKERELL, London, 1942, at a meeting of the Royal Society of Arts



Architect William Hamby presents an adaptation of the popular Colonial thumb latch. The handle and plate are of brass or white metal, with transparent plastic used for the thumb piece and lock button.

READING presents the second of a series of hypothetical designs submitted by members of the profession as a stimulus to better design in hardware for building post-war America.

READING HARDWARE CORPORATION, READING, PENNSYLVANIA

GOOD HARDWARE READING SINCE — 1851

LETTERS

FOR TEMPORARIES

Forum:

It is disgusting to watch the bickering, feuding, blundering Federal housing agencies making feeble efforts to provide shelter for defense workers. Their chaotic attempts would be amusing, if we were not at war. The bureaucratic "housers" failed to grasp the fundamentals of the situation, they failed to profit by the lessons of the last war.

The ghost towns and ghost factories are still in evidence. Under most favorable post-war conditions, there will be many abandoned war plants and war housing. Workers will drift back to home towns and their neglected homes or wander to strange cities in search of employment. Assuming most favorable post-war conditions, some plants will be converted to peacetime needs, surely, the present hasty planning and shoddy construction will not be an asset to the communities where such housing is located.

This is war, this a total war!

Soldier camps are temporary, so should migratory war workers be provided with temporary shelter only. Give the migratory worker shelter in form of barracks, bunk houses, igloos, dormitories or anything that will keep them in good health, comfortable, rested, fit for the next day's work. Give them temporary shelter without any salvage value, same as shot and shell or other war ordnance necessary to win this war.

Let the migratory worker, same as the journeyman of old, leave his family in peace in the old home town. Do not disturb the normal functions of the town or city, do not burden war plant communities with demands for schools, police, fire, water, sewer and other facilities for migratory war worker families.

Where possible, locate temporary shelter within walking distance to the plants; save precious gas, oil, rubber and transportation. Save precious hours required for travel and utilize the saved hours for war work.

Time is short, it is later than you think.

H. M. Turon

Atlantic City, N. J.

FURNISHING WAR HOUSING

Forum:

. . . The furnishing of defense workers' homes depends very largely on the family income and on the spending habits of the family. I think the most constructive approach the local Housing Authorities can take to a proper solution of this problem are: (1) to give some careful thought, in cooperation with architects, to the problem of building in some basic furniture, which, of course, would have to be strictly limited, and (2) a slow and well organized campaign among tenants to recondition their old furniture wherein the Housing Authority would provide the shops and some instruction and the tenants themselves would supply the materials. The Housing Authority of the City of Pittsburgh has employed a Housekeeping Advisor who has referred to her, by the Managers, the most serious housekeeping problems. In the course of her work, she gives advice to such families on the matter of furnishing their houses cheaply but artistically. One of the main problems she has found is an over-supply of furniture, which clutters up rooms and makes housekeeping difficult. I would add that it would be very desirable to arouse the interest of furniture manufacturers in well designed but cheap furniture for this market, and most particularly in some system of financing the stuff which would not encumber the slender incomes, particularly of low-rent families, to the degree which is unwise. . . .

B. J. Hovde

Pittsburgh, Pa.

DEFENSE AREA

Forum:

. . . The writer is the owner of 55 acres, free and clear, located on the Motor Parkway, on Long Island, 5 minutes from the R.R. station, in the vicinity of Farmingdale, Amityville, Deer Park and Brentwood, Long Island, where many thousands of workers are employed. There is an acute shortage in this defense area, for low priced homes. Millions of dollars are available by private institutions and banks in this defense area. If any of your subscribers would be interested in this section very attractive terms can be arranged. . . .

Astoria Contracting Co.

35-13 *Vernon Blvd.*
Long Island City, N. Y.

A CHANGING PROCESS

Forum:

. . . Like the Park School plan. (Jan. '42, p. 38 et seq.) we in Michigan, are thinking in terms of community schools and in setting up our school plan approval procedure we have thought of step number one as being a complete survey of present school facilities in any community. The Park School plan furnishes a further idea that the study should include not only the school facilities but the facilities of the entire community. For instance, some town or small city may be without a community building of any kind and therefore any plan for a new building should include some building which may be used by all the citizens of the community. Some town may find it has ample facilities of this kind and so in turn in planning a new school building the thinking should be in the direction of making use of existing facilities in connection with the school program.

We also notice in the Park School plan that the architects have recognized that education is a changing process and that buildings designed to meet the needs today are something entirely different from those of 50 or even 25 years ago. This leads us to the suggestion for a second step in our procedure, asking each school district to study its school building needs in relation to a replanned and expanded educational program, one that will not only make provisions for changing conditions but one that will also serve all the people of the community.

I am sure this article in your valuable magazine, sponsored by U. S. Gypsum Co., is a splendid contribution to community school planning. We feel certain that every person is interested in his school, since every person has either attended school or his children are there at the present time. In our post-war planning, and by the way, this should be comprehensive planning, it is our hope that park, recreation, library, and school boards will work cooperatively for the enrichment of our community life, as outlined in the Park School plan.

Eugene B. Elliott

Lansing, Mich.

EXPANDED MESH

On page 58 of the January, Civilian Defense reference number of The Forum, in the discussion of Army tests of burster slabs, the statement was made that the engineers had concluded that expanded mesh reenforcement was unsuitable for this type of construction. It has since been established that what was meant by the engineers' report was not that expanded mesh reenforcement, as such, was unsuitable, but that the particular type of closely-spaced, heavy reenforcement used in this test had proved unsatisfactory for the purpose. The conclusion which should have been drawn was that the tendency of such slabs to separate on the line of the reenforcement indicated the desirability of using light, open mesh to prevent temperature cracks. Such reenforcement is, of course, available in expanded mesh as well as other types.—Ed.



Out of War Housing—Comes a New Era of Better



Interior Walls and Ceilings at Lower Cost

● At Naval Stations, Army Posts and Defense Centers from coast to coast, *startling developments are taking place in war housing*. Of high importance among these achievements is Upson's contribution of *crackproof* walls and ceilings of lasting beauty, making possible substantial savings.

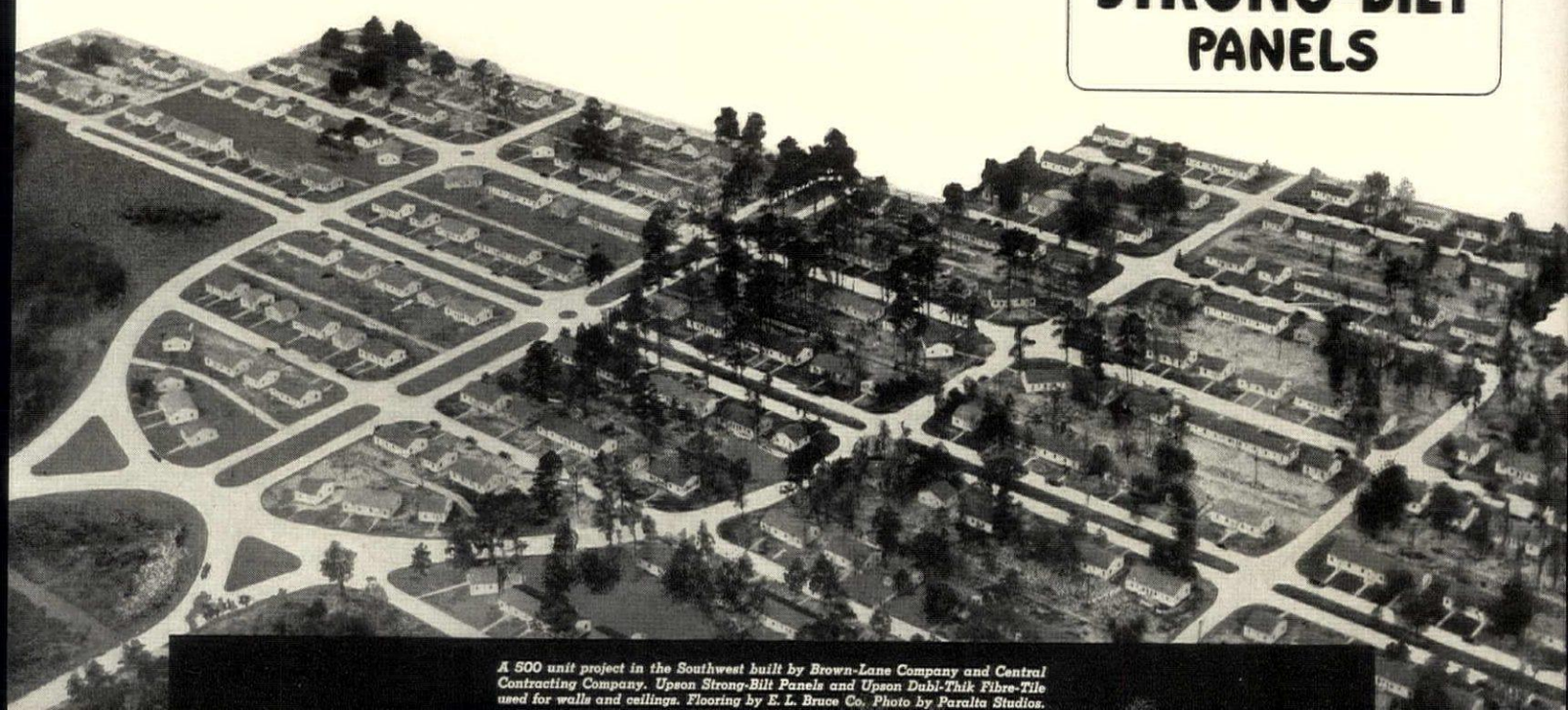
In lots of 100 units or more, Upson Strong-Bilt Panels are delivered numbered and pre-cut to usual wall height and room length—all ready for quick attachment to wood or steel framing by means of Upson patented Floating Fasteners. There is no waste, no wait, no worry. Upson Strong-Bilt Panels provide high insulation value . . . possess strength and rigidity . . . will not buckle when applied according to simple specifications.

Thus, Upson Strong-Bilt Panels provide the ideal answer for interior walls and ceilings in low cost Defense Housing, including pre-fab and demountable type units.

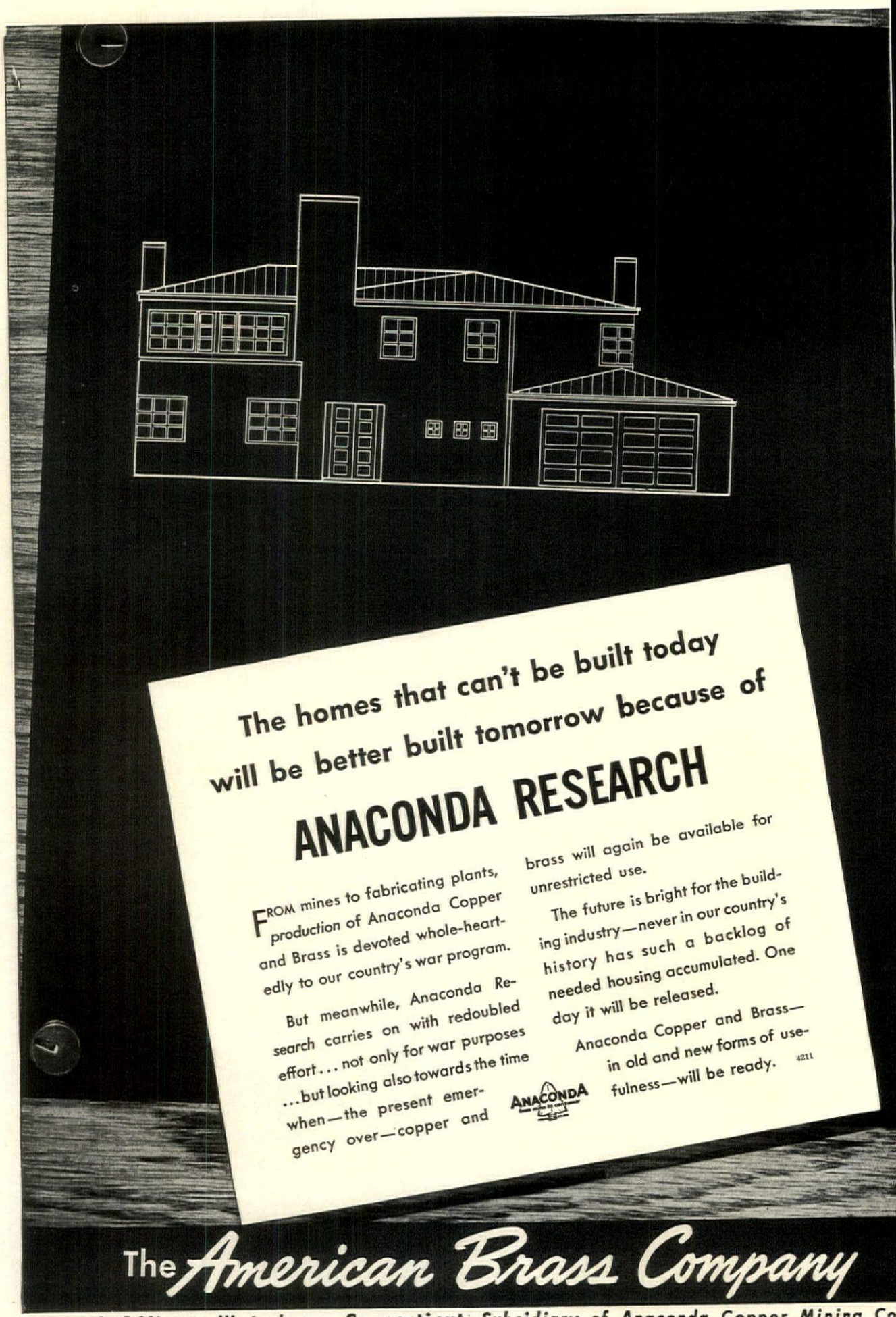
If you want to have a part in Defense Housing . . . if you want to know how *you* can use Strong-Bilt Panels to speed-and-profit advantage in *your own plans* . . . if you want to use *now* one method that will lead housing to new horizons after the war, *write quickly for details*. Successfully used in over 10,000 public and privately built housing units. The Upson Company, Department 2-B, Lockport, New York.

UPSON PRODUCTS

UPSON STRONG-BILT PANELS



A 500 unit project in the Southwest built by Brown-Lane Company and Central Contracting Company. Upson Strong-Bilt Panels and Upson Dubl-Thik Fibre-Tile used for walls and ceilings. Flooring by E. L. Bruce Co. Photo by Paralta Studios.


The homes that can't be built today
will be better built tomorrow because of
ANACONDA RESEARCH
FROM mines to fabricating plants, production of Anaconda Copper and Brass is devoted whole-heartedly to our country's war program.
But meanwhile, Anaconda Research carries on with redoubled effort... not only for war purposes ...but looking also towards the time when—the present emergency over—copper and brass will again be available for unrestricted use.
The future is bright for the building industry—never in our country's history has such a backlog of needed housing accumulated. One day it will be released.
Anaconda Copper and Brass—in old and new forms of usefulness—will be ready.
4211
ANACONDA
The American Brass Company
General Offices: Waterbury, Connecticut, Subsidiary of Anaconda Copper Mining Co.

Highlights of ANACONDA SERVICE to the building industry

1900
EXTRUDED SHAPES

Introduction and development of the extrusion process for architectural bronze and nickel silver.



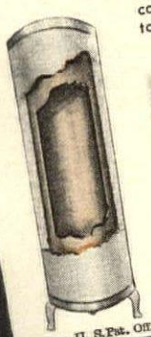
1922
ANACONDA BRASS PIPE

Introduced and promoted Brass Pipe for plumbing. Later developed Anaconda 85 Red Brass Pipe after a nationwide 10 year study of water corrosion.



1927
EVERDUR* METAL

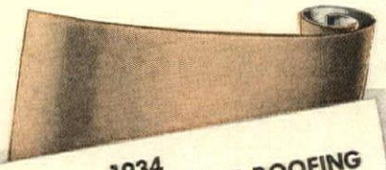
Commercial development of high-strength, weldable copper-silicon alloys leads to use for water tanks.



*Reg. U. S. Pat. Off.

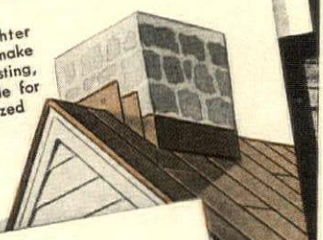
1932
"ELECTRO-SHEET" COPPER

New process makes wide, thin copper available for low-cost, lasting, damp-proofing, weather-proofing and concealed flashing.



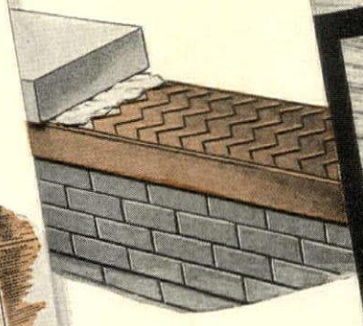
1934
10-OZ. ECONOMY COPPER ROOFING

New narrower, lighter weight roofing sheets make economical, long lasting, copper roofs available for small and medium sized homes.



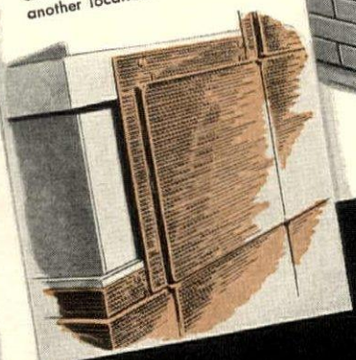
1935
THROUGH-WALL FLASHING

Patented new design provides positive protection and easier installation at reduced cost.



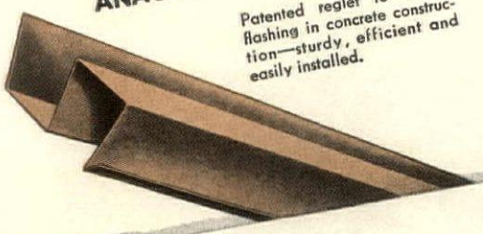
1938
COPPER WALL PANELS

A new dry-construction, patented wall facing; weather tight, non-absorptive; erected without solder or caulking compounds; allows free movement to prevent buckling. Panel walls can be dismantled and re-erected in another location.



1940
ANACONDA COPPER REGLET

Patented reglet to receive flashing in concrete construction—sturdy, efficient and easily installed.



1942
ANACONDA RESEARCH

This program of The American Brass Company is carrying on in many varied directions to improve efficiency and usefulness of existing products, and to develop new products and uses which will make building in the coming era more efficient, more lasting.

makers of *Anaconda Copper & Brass*

In Canada: Anaconda American Brass, Ltd., New Toronto, Ontario

MAKE THIS TEST – *Prove* BRIXMENT is BEST!



1 "Cap" one brick with Brixment mortar (left), and one brick with mortar made with 50-50 cement and lime. After mortars have hardened, place both brick in a pan of shallow water. (Photo 1.)



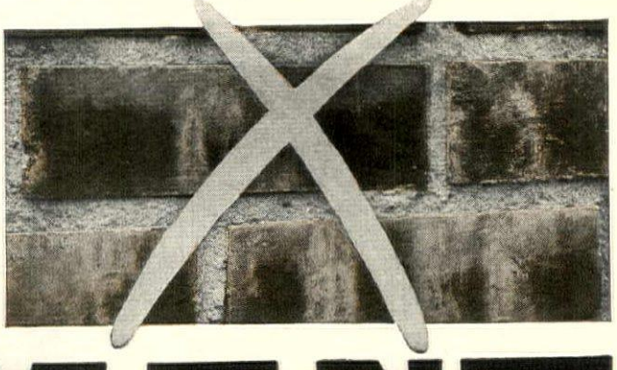
2 Keep about an inch of water in the pan. Even if soluble salts are present in the brick or sand, you will soon be convinced that *Brixment mortar helps prevent efflorescence.* (Photo 2.)

BRIXMENT *Helps Prevent* EFFLORESCENCE!

EFFLORESCENCE is an outcropping of minute white crystals on brickwork. When these crystals occur on colored mortar joints, the condition is sometimes mistaken for *fading.*

Efflorescence is caused by the presence of soluble salts in masonry materials. When reached by water, these salts dissolve, and are drawn by evaporation to the surface of the wall.

Brixment itself *does not cause efflorescence* because it is practically free from soluble salts. Even when such salts are present in the sand or brick, the waterproofing in Brixment mortar usually *prevents them from coming to the surface.* . . . Bricklayers who have used Brixment mortar for years say they have far less efflorescence with Brixment mortar than with *any other kind.*

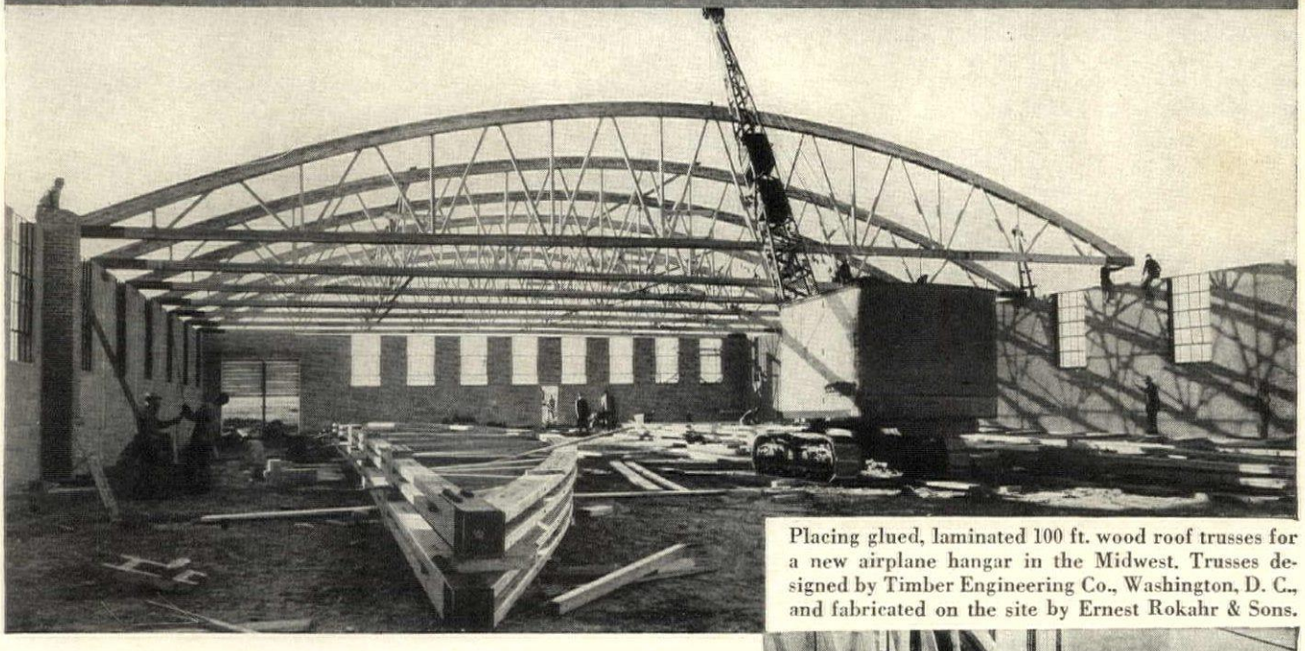


BRIXMENT

For Mortar and Stucco

Louisville Cement Company, Incorporated, Louisville, Kentucky. Cement Manufacturers for Over a Century.

WOOD-AND-GLUE REPLACES STEEL



Placing glued, laminated 100 ft. wood roof trusses for a new airplane hangar in the Midwest. Trusses designed by Timber Engineering Co., Washington, D. C., and fabricated on the site by Ernest Rokahr & Sons.

ON-THE-JOB FABRICATION of arches... trusses... girders... made possible by modern glues

Steel is scarce, wood is plentiful and time is short. That's why America's builders are turning to wood, glued into laminated members of strength, permanence and good appearance—for plants, hangars, auditoriums, warehouses, etc.

Proved by 30 years of use, these wood members save time, eliminate difficult transportation problems, require relatively unskilled labor and replace steel almost 100%.

Modern glues make it possible.

For protected (indoor) members, specify CASCO (Grade A) Powdered Casein Glue—easily mixed in cold water, used anywhere, anytime, indoors or out, at any temperature from just above freezing to summer heat. Meets U. S. casein glue specifications.

For outdoor members under any condition of exposure, specify CASCAMITE Plastic Resin Glue. Meets U. S. resin glue specifications.

CASEIN COMPANY OF AMERICA

DIVISION OF THE BORDEN COMPANY

350 MADISON AVENUE, NEW YORK, N. Y.



Application of Casco Grade A Casein Glue and assembly of 8-ply curved chords for trusses shown above. Outside working temperatures—36° to 70° F.

INFORMATION

Let this experienced glue organization be your consultant on all wood-plus-glue construction problems. Write for AIA folder "The Gluing of Laminated Wood Beams, Arches and Roof Trusses"

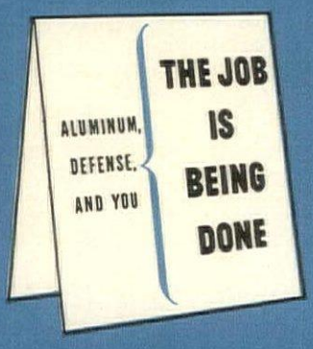
FORGET YOUR OLD ASSUMPTIONS

IMAGINEERING

IMAGINEERING

IMAGINEERING

IMAGINEERING



★

IN THESE DAYS an advertisement is no place either for hosannas or sermons about production. Every man knows how well he is doing the job that is before him. Deeds, not words, are the measure.

BUT WORDS CAN BECKON beyond the realms of immediate duty.

IMAGINEERING is such a word. We coined it to make the needs of the future a reality, here and now. It is a way of describing what a man can do about the day when. . .

HOW DO YOU DO IT? You let your imagination soar and then engineer it down to earth. You think about the things you used to make, and decide that if you don't find out some way to make them immeasurably better you may never be asked by your customers to make them again.

YOU FORGET YOUR OLD ASSUMPTIONS. For instance, you may be one who used to assume that aluminum was too expensive. Even if you were right then (and you may not have been) the price trend of aluminum knocks those assumptions into a cocked hat.

WERE YOU ONE who used to assume that structures behaved exactly the way the theory said? Have you looked into the new answers the mammoth testing machine in the Aluminum Research Laboratory has found for that one?

DID YOUR OLD PRODUCT GROW like Topsy? More than one designer is Imagineering with this point of view: My product was in a groove. I couldn't get it out, because I didn't dare get too far away from last year's model. Now's my chance to start from scratch, and let tradition be hanged.

THAT IS THE KIND OF THINKING that will make jobs in the future. It is the kind we can help with: help with ideas and with know-how. Will you invite us?

Aluminum Company of America, 2166 Gulf Building, Pittsburgh, Pennsylvania.

ALCOA ALUMINUM

For the Defense of Health!



POTOMAC 5-foot cast iron recess wing bath, enameled inside — low sides, wide rim, flat bottom — anti-siphon mixer fitting. **DELTON** 18 x 15-inch enameled shelf lavatory — 1½-gallon basin — two soap dishes. **TRYLON** vitreous china close-coupled washdown closet — round front bowl—sanitary TriKo seat. **PARKCHESTER** 42 x 22-inch cast iron combination sink—8-inch-deep basin for dishes, 13-inch-deep tub for laundry — mixer fitting, swing spout — acid resisting enamel.

New 4-piece POTOMAC SET meets wartime housing demands



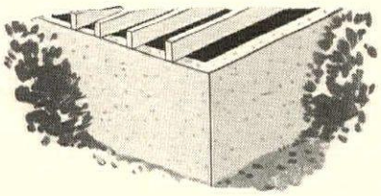
AGAIN Kohler offers first-quality fixtures and fittings designed to serve national health needs. This set conserves critical materials, sells at low cost to suit war housing budgets, yet combines the skill and manufacturing care traditional with Kohler products.

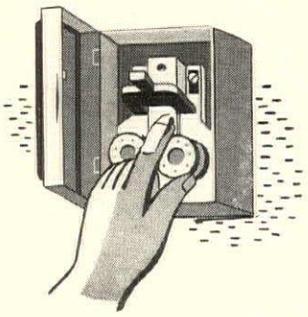
All fixtures are full size, with convenience and safety features unusual in their low-price range. Fittings are engineered for the fixtures to give maximum efficiency.

Recommend the Potomac Set to those who are building or remodeling to provide housing for workers in defense areas. . . . Kohler Co. *Founded 1873.* Kohler, Wis.

KOHLER OF KOHLER

PLANNED PLUMBING AND HEATING—ELECTRIC PLANTS





here...

and here...

and here...

it's the extra factor of safety that counts



● From the foundation of a building to the smallest fuse box, it's the *extra* factor of safety that assures permanent safety and serviceability under all conditions. Balsam-Wool insulation, too, includes this extra factor of safety. It is designed for *every* condition which insulation must face when applied. It gives the extra protection you need.

No wonder Balsam-Wool has achieved its amazing record of permanent efficiency. No wonder it has set the pace for other insulations to follow! For complete information about Double-Value Balsam-Wool—and about the extra safety and satisfaction which it assures—mail the coupon.

THESE DOUBLE SAFETY FACTORS MAKE DOUBLE-VALUE BALSAM-WOOL THE "ARISTOCRAT" OF INSULATIONS

DOUBLE sealing in a tough, protective covering

DOUBLE wind barriers to stop wind infiltration

DOUBLE moisture liners—an effective, lasting moisture barrier

DOUBLE air spaces to increase insulation efficiency

DOUBLE bonding to prevent settling or packing down

DOUBLE fastening to eliminate settling . . . fire and termite resistant

BALSAM-WOOL

BALSAM-WOOL • NU-WOOD

Products of Weyerhaeuser

WOOD CONVERSION COMPANY
Dept. 147-4, First National Bank Bldg., St. Paul, Minn.
Gentlemen: Please send me complete information about Balsam-Wool DOUBLE VALUE Insulation.

Name.....

Address.....

City.....*State*.....



LOOK UP
. . . . . and thank GOD!

Those are our planes you hear roaring overhead, Mister! Our skies are our own, because builders of those planes get the steel they need. Many a ton of steel for Victory comes from builders and contractors, who have turned to Richmond for better concrete form-tying methods—and because—

Richmond makes 1 Ton of Steel Do the Work of 3 Tons

Patriotic, yes! Intensely practical too! For the "Richmond Way" is the profit-making way in any sort of concrete form work. First, Richmond Form-Tying Devices cost less to use than "home-made", "makeshift" wire, band or rod ties, fabricated on the job. Second, our free technical and estimating service gives your man on the job a complete plan of what's needed; what's to be done; and how, down to the last detail of location markings for each job section. Third, there's no money tied up in working parts, when you do business with Richmond. Richmond lends you Tylags, Tycones, Flat Washers, Tywrenches, etc. From Richmond you get a service; a system; a fully proved method by which to net many an extra dollar; by which to gain recognition as doing something vital for Victory. Figure it out for yourself. We'll give you figures and facts.

REMEMBER PEARL HARBOR

Ewing Galloway

We Sell All Types . . . We Recommend Only Prefabricated Ties . . . They Cost Less!

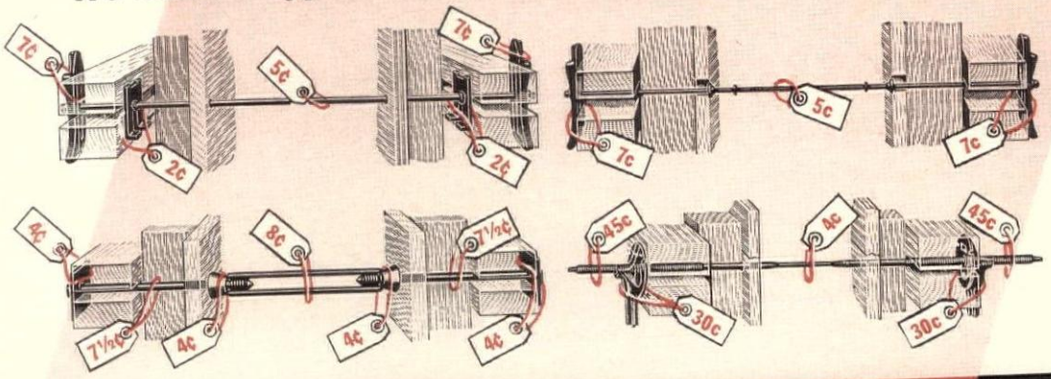


Figure it for yourself!
HERE ARE THE PRICES*

ALL PRICES F. O. B. BROOKLYN, N. Y.
*BASED ON A 12" CONCRETE WALL

RICHMOND SCREW ANCHOR CO., INC.

816-838 LIBERTY AVENUE • BROOKLYN, N. Y.

TIME AND LABOR SAVING CONSTRUCTION DEVICES FOR CONCRETE CONSTRUCTION

EVERY SQUARE FOOT OF

KOOLSHADE* SAVES MANY TIMES ITS EQUIVALENT IN CRITICAL MATERIALS AND AIR CONDITIONING COSTS!

... in fact, 100 sq. ft. of KOOLSHADE Sun Screen saves approximately 1 TON of cooling capacity requiring 200 to 400 lbs. of equipment!



KOOLSHADE SUN SCREEN *is a fine-mesh bronze fabric made like a tiny Venetian blind. Keeps out sun heat but lets in plenty of glareless light!*

● It takes less equipment... and costs less money... to keep heat out than to cool it. That's why KOOLSHADE Sun Screen is being made a part of more and more Air Conditioning jobs every day —in essential plants, offices and Government Buildings.

Engineers calculate that direct sun heat through windows is ¼ to ½ of the total load on cooling equipment. (*See chart of typical figures at right.*) KOOLSHADE stops 80% to 85% of that sun heat outside... enables smaller cooling units to produce identical results with sizeable NET SAVINGS in both original and operating costs, in power consumption and in critical materials.

Where Air Conditioning is not now planned (or cannot be obtained) KOOLSHADE alone will keep buildings many degrees cooler, increasing workers' efficiency and boosting production. Then, when mechanical cooling is added later, the same KOOLSHADE will be there to insure greatest cooling efficiency.

Ingersoll

KOOLSHADE*

SUN SCREEN

*Registered Trade Mark, Property of Ingersoll Steel & Disc Div., Borg-Warner Corp.

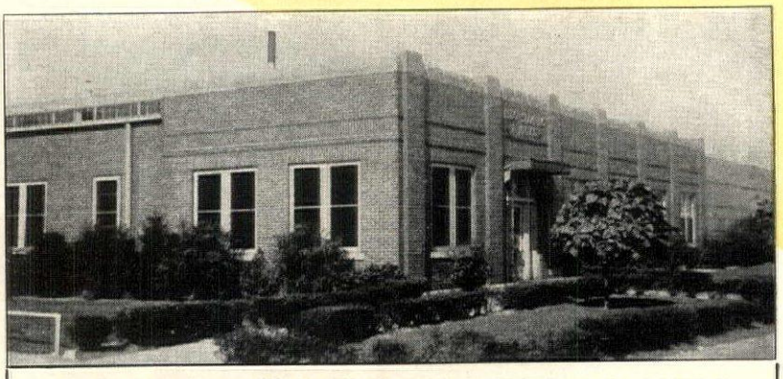
Ingersoll Steel & Disc Division,
Borg-Warner Corporation,
Dept. F4, 310 S. Michigan Avenue,
Chicago, Illinois.

Please send (without charge) your Sun Heat Demonstration Kit and also complete KOOLSHADE Sun Screen literature.

Name.....*Firm*.....

Address.....

City.....*State*.....



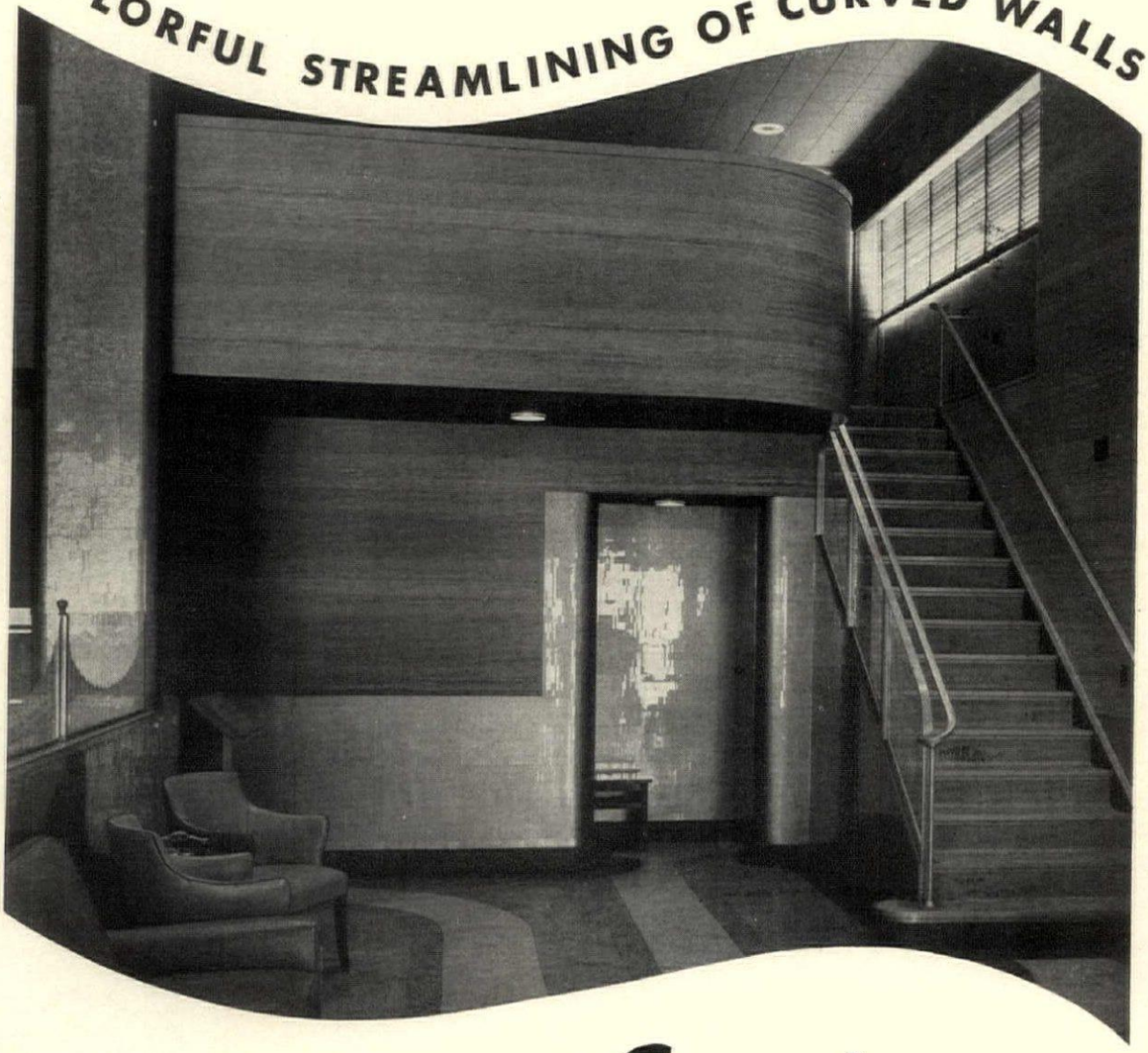
HERE'S HOW KOOLSHADE CUTS THE COOLING LOAD AT TOLEDO STAMPING & MFG. CO.

● This chart of actual engineering figures shows how KOOLSHADE reduces the total cooling load by more than 44%... not an unusual percentage on either large or comparatively small jobs such as this at Toledo Stamping & Mfg. Co.

BARE GLASS	VENETIAN BLINDS	KOOLSHADE SUN SCREEN
SUN LOAD ON WINDOWS	SUN LOAD ON WINDOWS	SUN LD. ON WINDOWS
9636 B.T.U.	5588 B.T.U.	1122 B.T.U.
NOTE THAT SOLAR LOAD THROUGH WINDOWS IS 49.9% OF TOTAL LOAD	NOTE THAT KOOLSHADE REDUCES SOLAR LOAD THROUGH WINDOWS 88.35%	
BALANCE OF COOLING LOAD: Sun heat on roof at 3:00 p. m. Outside air — one change total heat—4 people — heat gain through walls	BALANCE OF COOLING LOAD: Sun heat on roof at 3:00 p. m. Outside air — one change total heat—4 people — heat gain through walls	BALANCE OF COOLING LOAD: Sun heat on roof at 3:00 p. m. Outside air — one change total heat—4 people — heat gain through walls
9664 B.T.U.	9664 B.T.U.	9664 B.T.U.
19300 B.T.U. MAXIMUM LOAD PER HR.	**15252 B.T.U.** MAXIMUM LOAD PER HR.	**10786 B.T.U.** MAXIMUM LOAD PER HR.

● KOOLSHADE savings are proportionate to window areas involved and savings up to 200 TONS OF COOLING CAPACITY have been obtained on actual installations. What this means in costs and materials saved is obvious when it is noted that each ton of cooling capacity takes 200 to 400 lbs. of equipment.

COLORFUL STREAMLINING OF CURVED WALLS



with... GLASS and wood!

2,500 sq. ft. of pale yellow Old Gold Metallic Flexglass used for columns, counters and dado; walls treated with 4,500 sq. ft. of honey-colored Bella Rosa Flexwood, applied horizontally; Morrison Cafeteria, Mobile, Ala., Maurice E. Kressly, Archt. (Photo: Paul J. Woolf).

Streamlined interior design takes on new significance when glass and wood can be made to blend and curve into each other in an unbroken treatment. Flexglass, the glass that bends, and Flexwood, wood in facile form, make such effects possible and give today's designers fresh opportunity because both materials can easily be applied to any smooth, hard surface . . . flat or curved.

UNITED STATES PLYWOOD CORPORATION
103 PARK AVENUE, NEW YORK
Manufacturers of Flexwood

Flexwood and Flexglass are manufactured and marketed jointly by The Mengel Co., Louisville, Ky., and the United States Plywood Corp., New York

The cafeterias designed by Architect Kressly are colorful and inviting. His use of Red Opal Flexglass for exteriors, Peach Mirror Flexglass for ceilings, and Brick Metallic and Gold for the interiors, gives a note of distinction to his design. Flexglass is real glass in 30 colors and patterns; for use indoors or out. Write for samples and color card.

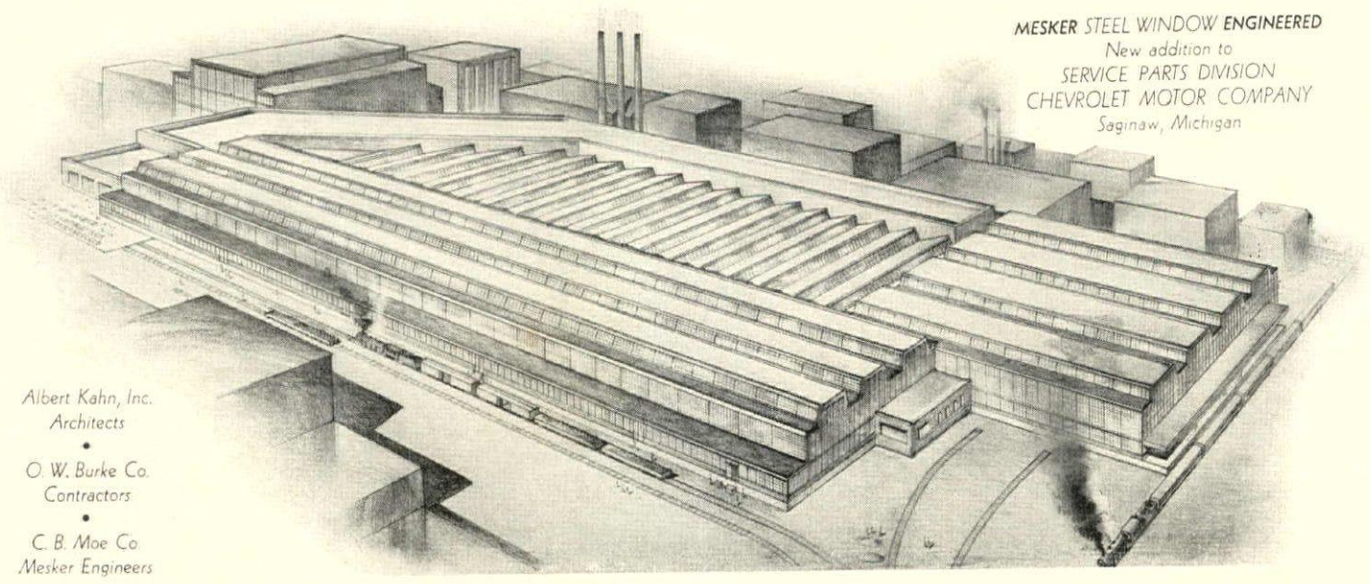
Flexglass

THE GLASS THAT BENDS



THIRTY COLORS

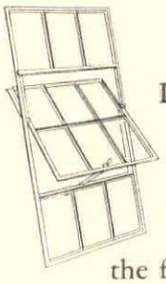
☆ WORTH REMEMBERING . . . THE STEEL SASH MERIT-METER PROVES MESKER GIVES YOU AT LEAST 35% MORE QUALITY FOR YOUR MONEY! ☆



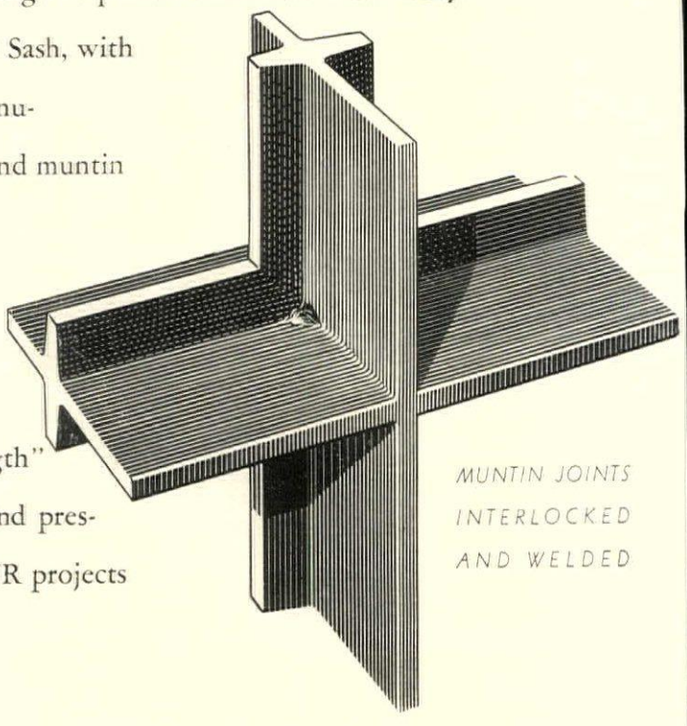
MESKER STEEL WINDOW ENGINEERED
New addition to
SERVICE PARTS DIVISION
CHEVROLET MOTOR COMPANY
Saginaw, Michigan

Albert Kahn, Inc.
Architects
•
O. W. Burke Co.
Contractors
•
C. B. Moe Co.
Mesker Engineers

Emphasizing a new kind of STAMINA . . .



Difficulties in glazing defense projects, due to loose or broken muntin joints in Steel Sash, can account for unwarranted, costly delays in meeting completion schedules. Such delays are eliminated *in advance* by using Mesker Steel Sash, with the famous "LOCK-WELD" Muntin Joint. Most manufacturers merely "interlock"... mechanically... cross and end muntin joints. Mesker... *in addition*... SOLIDLY ARC WELDS them for maximum strength. While this *doubles* manufacturing costs of this particular feature, it also DOUBLES STRENGTH... at a competitive price. Translated into specific facts, this "double strength" means added rigidity, less deflection from wind pressure, minimum damage to muntins. Keep YOUR projects "flying"... *specify MESKER.*



MUNTIN JOINTS
INTERLOCKED
AND WELDED



THE DOUBLE THICK WEATHERING BAR

. . . used on Mesker Industrial Pivoted Sash is ¼" thick . . . twice that used by others in Industrial Steel Sash. This exclusive feature, so dramatically illustrated by the Visual Test Kit (free upon request), is indicative of the quality built into ALL Mesker products.

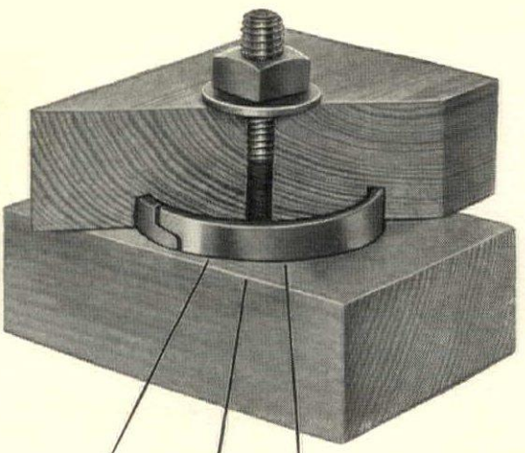
Mesker Brothers

STEEL SASH

424 SOUTH SEVENTH ST., ST. LOUIS, MO.

CASEMENT WINDOWS • MONUMENTAL WINDOWS • INDUSTRIAL WINDOWS
INDUSTRIAL DOORS • METAL SCREENS • DETENTION WINDOWS

Lumber
Speeds
VITAL CONSTRUCTION
through
IMPROVED METHODS



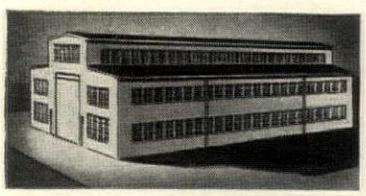
THE Teco Connector system of wood construction has brought about an epochal advance in the structural use of lumber . . . releasing steel in vast quantities for the war effort . . . presenting an unlimited new field for service and activity to architects, engineers and contractors. Lumber takes over!

As a result of the Teco Connector system of wood construction, lumber can be used more effectively and economically than ever before in designing, engineering and construction. A simple invention, simple to use, the Teco Connector distributes the bearing area of stresses at joints over almost the entire width of the member, giving more rigid and stronger joints *with less material.* It has made possible the swift and economical construction of thousands of defense structures, including large and small factories — army chapels — pre-fabricated houses — hangars — dry docks — wood trusses with clear spans of 180 feet and more — graceful wood towers more than 300 feet high. It opens the way for meeting many of the current requirements for commercial and industrial construction.

Every individual or organization interested in the expanded possibilities of the Teco Connector system of wood construction can make immediate use of practical working material available. Any qualified structural engineer can design for the use of Teco Connectors and competent carpenters can use them in building with commonly available lengths and dimensions of lumber. Write today for full details.

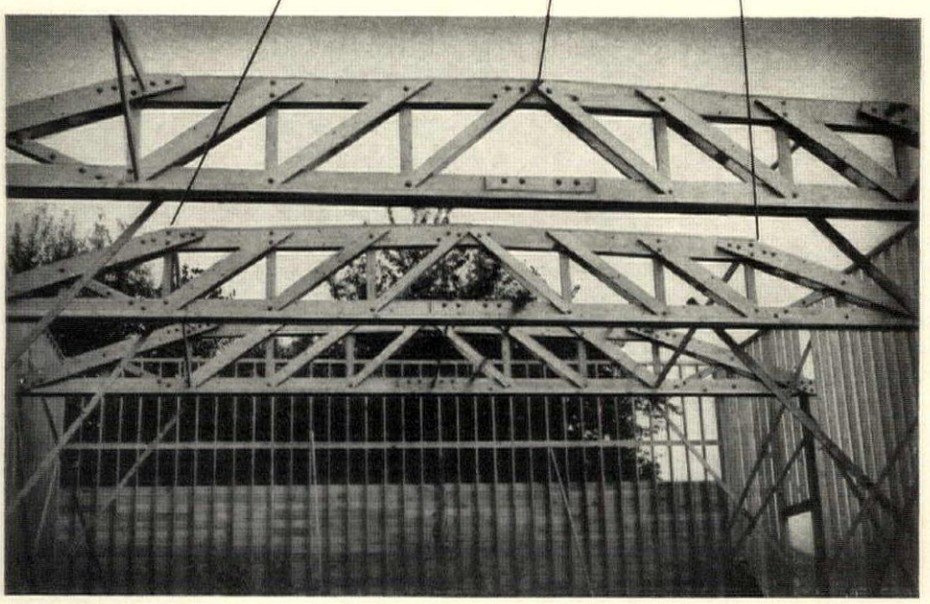
WEYERHAEUSER SALES COMPANY

First National Bank Building · Saint Paul, Minnesota









The use of 200 Teco Connectors releases more than a ton of steel, enough for approximately 400 army rifles, or 50 heavy machine guns.

Copyright 1942, Weyerhaeuser Sales Company

TECO Timber Connectors *Save!*

SAVE STEEL . . . One pound of Teco Connectors replaces 11½-12 pounds of steel.

SAVE LUMBER . . . 80% to 100% of the working strength of lumber is utilized instead to from 40% to 60%.

SAVE MONEY . . . There is a saving up to 33⅓% in cost as compared to steel, and up to 45% as compared to traditional wood truss construction.

SAVE TIME . . . Trusses can be speedily fabricated on the job out of standard lengths and dimensions of lumber.

BOOKS



FIRTH OF FORTH BRIDGE

BRIDGES AND THEIR BUILDERS, Steinman and Watson. G. P. Putnam's Sons, New York. 379 pp., illustrated. 8¾ x 6¼. $3.75.

One of the most remarkable things about books on bridges is the number of them: so universal is their appeal that the bibliographies list works by painters, photographers, civil and military engineers, and historians. Something of the feeling that has inspired so many writers is expressed by the authors in the prologue. "We want to make you see bridges as we see them—not mere prosaic objects of utility and economy, but as something far more significant and inspiring. . . . A bridge is more than a sum of stresses and strains: it is an expression of man's creative urge—a challenge and opportunity to create the beautiful. A bridge is the fulfillment of human dreams and hopes and aspirations. A bridge is the symbol of humanity's heroic struggle toward mastery of the forces of nature. A bridge is a monument to mankind's indomitable will to achieve."

In this detailed record of bridge building from the earliest days, the authors come close to succeeding in their purpose. The story of man's slow progress in the art is told sympathetically and clearly: the primitive arches and beams and suspension bridges are described as the triumphs of ingenuity that they were. To the layman the presentation of Asiatic and Mediterranean civilizations from the viewpoint of the bridge builder is unusually interesting. The tremendous changes brought about by the use of cast and wrought iron, and later steel, are discussed in great detail. In many cases there are biographies of the builders, such as Telford, Stephenson, Roebling and others, with very complete accounts of their difficulties, methods of working, and achievements.

The authors are very well qualified for their job. Mr. Steinman is a distinguished engineer, the designer of bridges on every continent except Africa, while his collaborator, daughter of a noted engineer, has other articles and books on bridges to her credit. The book is weakest in its collection of illustrations, which could have been much more numerous, and in the number of rather involved descriptions which could have been presented graphically with greater effect and economy. The result is nonetheless valuable, for it is comprehensive, authoritative and well written, and it has been made intelligible to the non-technical reader without the sacrifice of completeness or accuracy.

MODERN PLYWOOD, by Thomas D. Perry. Pitman Publishing Corporation. 366 pp., illustrated. 6½ x 9¼. $4.50.

The recently inaugurated prefabricated house program, sponsored by the government with a view to providing industrial workers' housing as rapidly as possible, is the latest of a series of developments which have brought plywood to the attention of builders and the public at large. Even before the metals shortage became acute, it was apparent that both prefabricators and old-style builders were turning more and more to this material as a means of achieving strength and rapid erection. The appearance of a new twin-engine plane a few months ago, constructed entirely of plywood, again served to publicize the remarkable flexibility and variety of uses of this material. To the architect, accustomed to thinking in terms of plywood as a wallboard, primarily, Mr. Perry's book should prove something of a revelation, for the list of uses he gives is already too long to permit complete recapitulation. It includes barrels, boat hulls and superstructures, pontoons, burial caskets, shipping containers, furniture, musical instruments, truck bodies, freight cars, skis, tennis rackets and luggage. The qualities which permit so widely varying uses are its strength combined with light weight, immunity to certain types of chemical action, and its waterproof qualities when the new adhesives are used. Also in favor of the material is the comparative ease with which it can be formed, and the variations in thickness and quality made possible by the selection of veneers.

This book is far from a mere description of the uses of plywood, however. The author, who has been identified with the manufacture of plywood for more than thirty years, and is an outstanding authority on woodworking and veneers, has attempted with considerable success to cover his subject in a comprehensive fashion. Between the plywood covers of his book he has managed to sandwich practically everything about the material the average reader would want to know. The book reviews the history of plywood, and discusses the qualities of the material and its advantages. There is a chapter which covers all types of adhesives currently used, and another which describes all the forms in which plywood is manufactured. Some of these forms include combinations of fiber boards and veneer, asbestos-veneer constructions, and combinations with gypsum boards and metal sheets. Not only is the process of manufacture treated in considerable detail, but methods of producing the veneers are also reviewed. To facilitate use of the book an excellent index and glossary are included, while the list of questions placed at the end of each chapter increases the book's value as a text for classroom use or home study. Most interesting, perhaps, are the indications of future developments in plywood technique. The plastic adhesives are already producing a material that has more the character of a plastic than of wood, and there is a recently studied type of resin which offers great promise in the making of high-density plywood. Equally promising is the appearance of differential density constructions, as in airplane propellers, where varying degrees of weight and hardness are required. By changing the density of the material the manufacturer approaches the methods of heat treatment and alloying used in metals to produce different qualities. For completeness and clarity of treatment the book is highly recommended; it should serve admirably as an authoritative reference work for anyone interested in any phase of plywood manufacture and use.

(Continued on page 62)

This advertisement also appears in **THE SATURDAY EVENING POST** and other national magazines

New kind of Hardwood Flooring

SPEEDS DEFENSE *Victory* HOUSING

Saves Days of Time .. Low in Cost



Factory-Finished

Bruce Streamline Flooring comes completely finished, ready for use the instant it's laid. The factory-applied finish resists scratching and marring. Easy to maintain.



One of 74 Big Defense Housing Projects Using Bruce Streamline

More than 20,000 Defense Dwelling Units, from coast to coast, are floored with Bruce Streamline. For example: in the Pittsburgh area—8 out of 13 Defense Housing Projects have Bruce Streamline Floors . . . over one million feet used in Corpus Christi and Orange, Texas . . . in the Washington area, more than 4,000 units floored with Streamline!

The Greatest Improvement Ever Made in Hardwood Flooring!

Bruce Streamline Flooring saves valuable days on every job, because it's completely finished at the factory—ready to use as soon as laid! No sanding or finishing on the job; no delays due to slow drying weather. Saves time and expense of temporary wiring for sanding machines. Streamline Flooring lays fast, too—because the 3¼-inch strips cover 44% more area than the usual 2¼-inch strips. Less pieces to handle, less nails to drive.

Yet the installed cost of Streamline Flooring is competitive with even the lowest available grade of hardwood flooring finished on the job! Defense housing contractors tell us that, all factors considered, Streamline costs *less* than any other comparable floor.

And, most important, you are sure of "delivery as promised" on Streamline Flooring. It is made by Bruce, world's largest maker of hardwood floorings, with a capacity of half a million feet of flooring a day!

*

CONTRACTORS, ARCHITECTS, HOUSING OFFICIALS: Send for this big new book, "Low Cost Floors for Defense Housing." Read what defense housing contractors say about Streamline. Get the whole story on this amazing flooring. Write for your free copy today.



E. L. BRUCE CO., 1492 Thomas St., Memphis, Tenn.

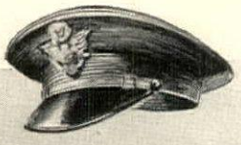
BRUCE

STREAMLINE *Factory-Finished* HARDWOOD FLOORING

Trade-Mark Registered U. S. Pat. Off.

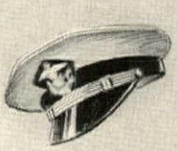
OTHER BRUCE PRODUCTS FOR DEFENSE AND WAR: *Pine and Hardwood Lumber, Shell Boxes, Wooden Containers, Furniture Dimension, Wood Parts. On any wood items needed in quantity, write: Wood Products for Defense, E. L. Bruce Co., Memphis, Tenn.*

BUY UNITED STATES DEFENSE SAVINGS BONDS AND STAMPS



They're

ENTITLED TO THE BEST





When a nation goes to war, cleanliness and sanitation are of first importance to its armed forces and to the men behind the lines, who are working around the clock for Victory.  Case plumbing fixtures are naturally called upon to help supply the need. ★ ★ Army posts and camps, Army air bases and Air Corps training centers, Naval bases and Naval air stations must be equipped. An even larger share of our production is now required for the equally important needs of Defense

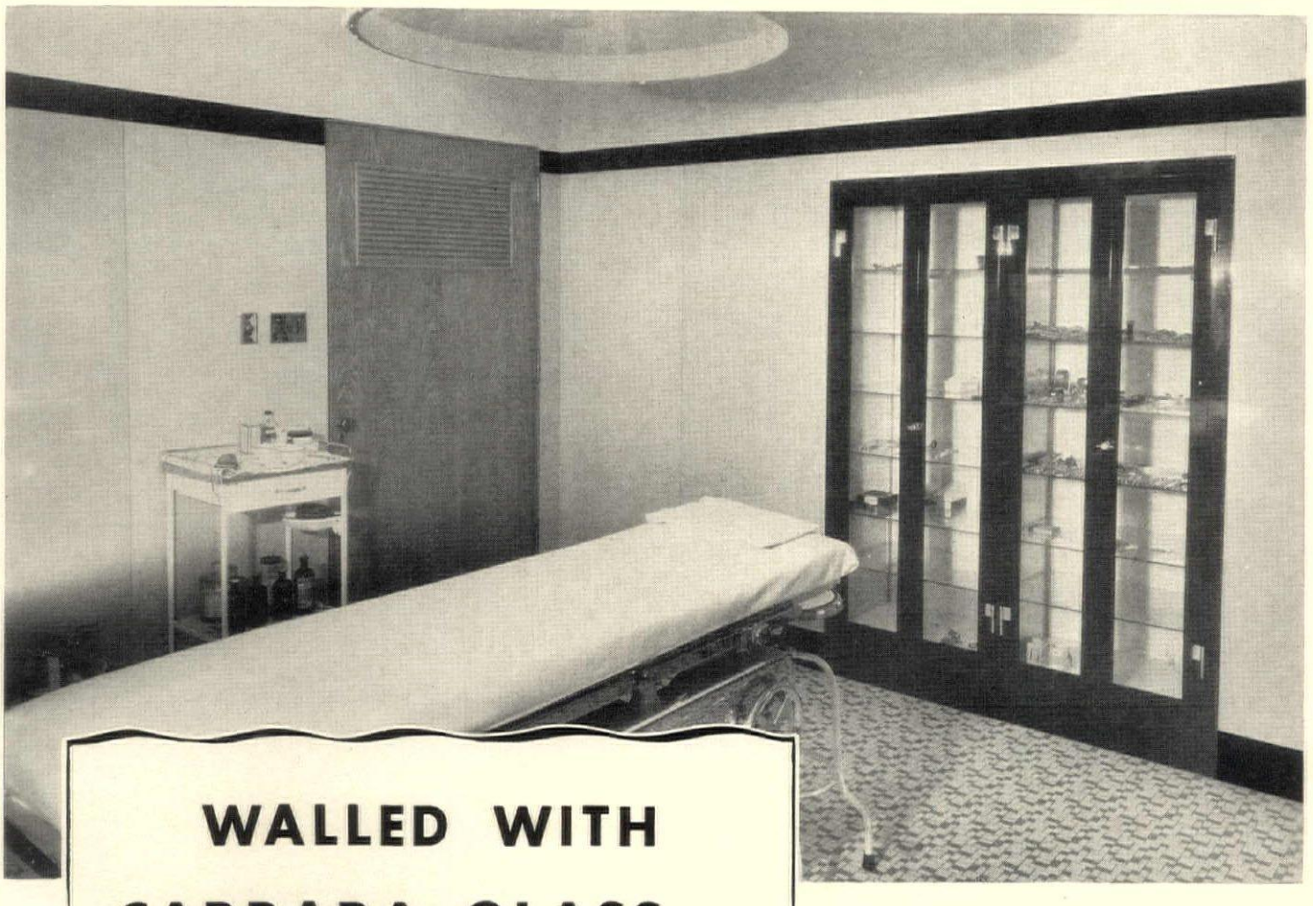


housing, industrial plants and shipyards, and vital public utilities and services. ★ ★ Of course we must meet Uncle Sam's requirements *first*—promptly, efficiently and unselfishly. And we are immeasurably aided in attaining this end by the splendid facilities and loyal cooperation of our manufacturing  plants, branch offices and warehouses, and a nationwide organization of carefully selected independent distributors. ★ ★ Yet even taking into account our recently increased production capacity, we are unable to furnish our products as promptly as heretofore for private, non-Defense customers. For the time being, new or modernized construction *not* covered by Government priorities must necessarily take its turn. *Uncle Sam comes first.* ★ ★ W. A. Case & Son Mfg. Co., Buffalo, New York. Founded 1853.



Case

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This operating room in the Armstrong County Hospital, Kittanning, Pa., was walled with Carrara Structural Glass for maximum beauty, efficiency and permanence. Architect: Tillman Scheeren, Jr.

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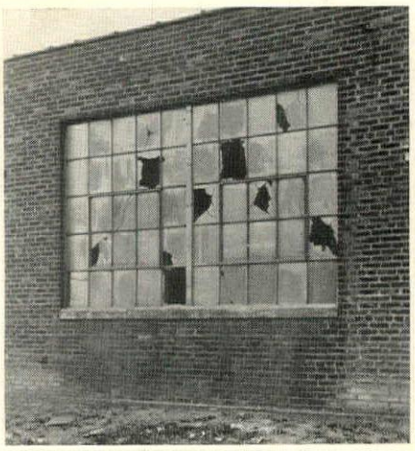
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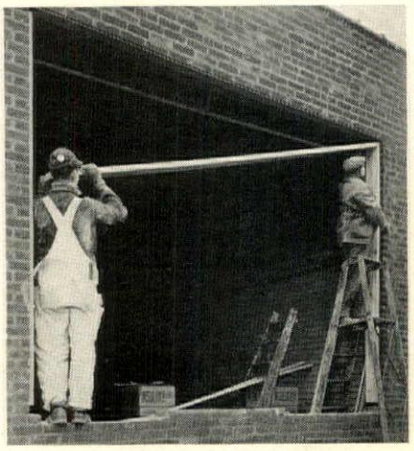
250 Pounds of Metal Saved in This Single Opening

By *New* INSULUX Technique for Sash Replacement

HOW TO REPLACE WINDOWS IN BRICK WALLS



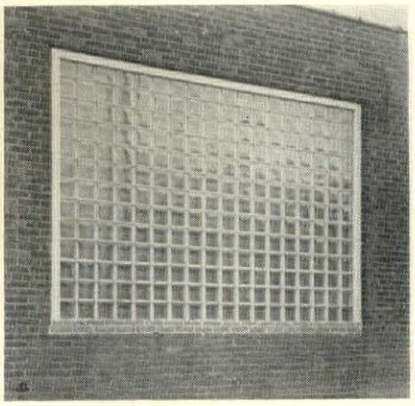
1. Knock out deteriorated window. This particular one releases valuable salvage for war — and INSULUX Glass Block panels step up plant efficiency.



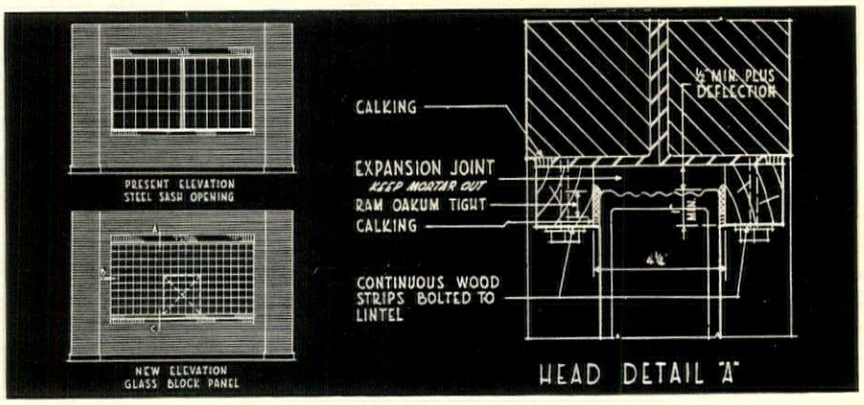
2. Build a chase in existing exterior walls, or as here, with wood blocking. Replace old sill with brick or concrete to obtain even bearing, if required.



3. Put glass block in place—any competent mason knows how. Corrugated bearing edges on INSULUX Block cut into the mortar, give the block a firmer grip.



4. The finished panel provides a high degree of light transmission, protects war work from prying eyes, makes maintenance savings that will pay dividends for years to come. This single opening saves 250 pounds of metal that can go directly into armament production.



5. These details covering replacement of small windows in 8″ brick walls show the construction technique followed in the installation illustrated. A Texas textile mill has reported a saving of 9100 pounds of metal through an INSULUX replacement program that required only 300 pounds of steel in anchors and wall ties.

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It's up to American Industry

From all over the world, frightened, helpless eyes peer through the mists of war toward American smokestacks. *Will children die of hunger? Will rifles in men's hands have bullets? Will the air above them swarm with friendly planes . . . or hostile?* It's up to American industry.

Because Koppers cuts across the whole American industrial scene like a common denominator, every new job for American industry puts fresh responsibilities on Koppers and some Koppers product.

Ships gliding down the ways with the hopes of civilization clinging about their bows, have been speeded into the service with bronze propellers from Koppers foundries. The plane soaring protectively above you probably has Koppers piston rings. The carriages of the anti-aircraft guns that rumble comfortingly past on their way to the coast were possibly built by Koppers.

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Koppers is mining vast quantities of coal for fuel. Koppers coke ovens are transforming much of that coal into coke, gas and the flood of other products which eventually mean munitions, drugs, plastics, synthetics, rubber and other indispensables.

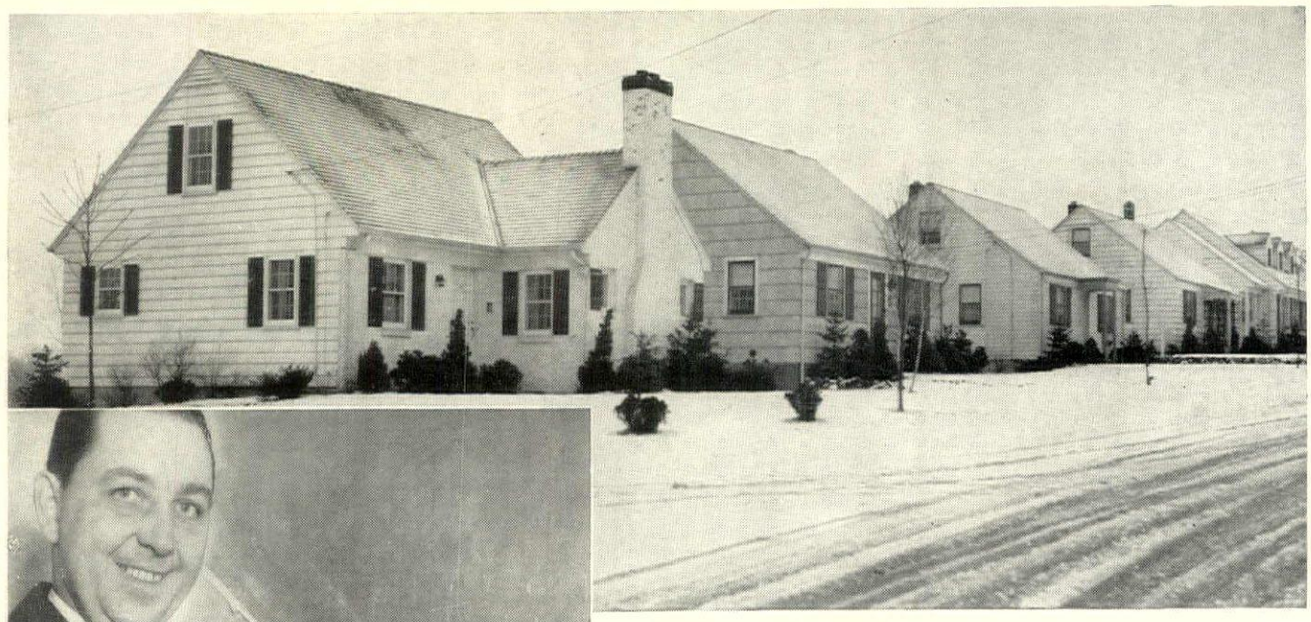
With the lives of boys from your home and our homes at stake . . . and the hopes of engulfed nations in the balance . . . every word from an American factory becomes the world's greatest news story. It's up to American industry. Koppers Company, Pittsburgh, Pa.

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BUY UNITED STATES DEFENSE WAR BONDS AND STAMPS

New Jersey Builder insures against Plaster Cracks*





* *James Hanson, of Quinn Brothers Construction Company, Palisades Park, N. J., points to the secret of the Gold Bond Floating Wall System —the patented nail. "The best insurance I've found against cracking plaster is the Floating Wall System," says Mr. Hanson. "Cracking trouble stopped when we started using it, and the cost is so low it's even practical for houses selling under $6,000." Above is part of a Quinn Bros. low-cost housing development near Hackensack, N. J.*

MORE and more architects and builders are solving the cracking plaster problem in the sure way James Hanson does. When walls and ceilings are made with Gold Bond gypsum lath and plaster by the new Floating Wall System, your jobs are protected against normal expansion, contraction, and settling . . . the causes for ninety per cent of all plaster cracks.

No special equipment is necessary to install this better wall and ceiling system. Any lather can drive the patented nails *between* panels of gypsum lath, providing a resilient fastening from wall to studding. Plastering is done in the usual manner.

Besides guarding against cracks, Gold Bond's Floating Wall System provides a one-hour fire rating for walls, and efficiently reduces room-to-room noise. Yet it costs so little it can be used even for defense housing and other low-cost jobs.

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Write today for detailed specifications on the Floating Wall System, and other new and better Gold Bond methods of wall and ceiling construction. National Gypsum Company, Buffalo, New York.

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Gold Bond

Everything - for walls & ceilings

DETROIT short of housing may soon be short of bombers . . . and there's many another U. S. Detroit

The most enormous shed ever created by man—a single workroom two-thirds of a mile long and a quarter mile wide—nears completion in a stretch of sparsely wooded farmland 25 miles west of Detroit, not far from the sleepy little college town of Ypsilanti. It is Henry Ford's new $60 million Willow Run plant to mass-produce giant bombing planes.

Inside, even as construction crews are still extending roof and walls at the far end, there is a whir of activity. Inspectors race about on bicycles, big trucks run errands. Machines of fantastic shapes and sizes are hoisted into place. Workers—many of them young girls in slacks and bright-colored blouses—attend training classes, study working models. Dies pour out of the tool-making department. Already the makings of a 28-ton, four-motored Consolidated B-24-D can be seen moving down the embryo assembly line, the first of a production flow expected to build a bomber every hour. Adjoining, an airfield with enough concrete runways to make a highway 32 miles long, is being readied; here the planes will make test flights before taking off for service. . . . If any evidence of America's ability to win a war is needed, nothing more dramatic can be offered than the industrial miracle of Willow Run.

But . . . .

Last month Detroit awoke to the bitter fact that Willow Run highlights something more than the American genius for industrial planning. The same attention to detail which provides workers with fluorescent light, conditioned air, spotless toilets, spacious lunchrooms, even piped-in music to step up productivity, stops short when the workers leave the plant.

No housing whatsoever, excepting a trailer camp and a scant handful of over-priced frame dwellings, has been provided anywhere close by. Nor is any housing of adequate quantity or quality likely to appear immediately: this is all virgin land, minus the necessary utilities. Ypsilanti (pop. 12,000) gets its water supply from wells. Its services are already over-taxed, can hardly be expected to accommodate any sudden large increase. To work in Willow Run, you must live in Detroit and daily make the long trek back and forth by car—or, as one worker has done, throw up a squatter's tent.

Willow Run is Detroit's biggest housing headache, but it is only one of many problems raised by the expanding program of war production. Workers in other war plants must also be housed. A year hence, when all the auto factories have been converted, 276,000 more workers than ever before will have jobs in the Detroit area. Before this summer's end migrant workers are expected to start swarming and Detroit's housing crisis will become progressively more acute. Dumped on top the problem of how and where to provide needed dwellings is the wholly unanticipated problem of local transportation. Detroit is a city built on motor wheels. What will happen when tires begin to wear out on workers' cars? How, for instance, will Willow Run's workers—70,000 this summer, 100,000 by next year—be able to get to their bomber-building chores if they become autoless?



AN OBJECT LESSON: $60 millions are spent to make Willow Run the world's most productive bomber plant but its 100,000 workers must either commute by auto from Detroit 25 miles away or live in makeshift quarters



The Distributor

Here are the ingredients for chaos. Quick coordinated action on all fronts—utilities, housing, transportation—is imperative. Willow Run (or any other war plant) could easily become as symbolic as the boy who lost a kingdom for want of a nail.

At long last, the seriousness of Detroit's housing crisis is recognized. To make recommendations, worried Mayor Jeffries has set up a fact-finding committee of diverse local interests, headed by the studiously fair-minded Father Raymond Clancy, Director of Social Action for the Detroit Archdiocese. President Roosevelt has delegated NRPBoss Delano to find a solution for the Willow Run housing problem specifically. NHAdministrator Blandford's men are moving in fast: priorities have been cleared for 45,000 houses to go up immediately in the Detroit area—15,000 with Lanham money, 30,000 by private builders.

Complicated at best, Detroit's housing problem is doubly confounded by a thinly concealed clash of economic interests. Emotions are at the point where opposing sides call each other "fascists" and "reds". Officials hesitate to express their views on local needs for fear of explosive political consequences. To get the picture of what is happening in Detroit, the Forum made its own on-the-scene investigation, weighed the pros and cons of various proposals, here presents its findings.

DETROIT: A CITY WHERE HOUSING EMERGENCIES ARE NOTHING NEW

Backdrop. Qualitatively, Detroit has long had a housing shortage. An unchallenged real property survey made several years ago disclosed more than 70,000 substandard homes. Some have since been demolished or rehabilitated, but at a rate that barely matches the deterioration of other dwellings previously considered desirable. Meanwhile, especially within the past year, new shacktowns with primitive or no sanitary facilities have mushroomed around the huge new munitions plants just outside the city limits.

Small wonder, then, that the auto workers refer to themselves as the "dead end kids of U. S. Labor." Through their union, the UAW-CIO, they have been pressing for better housing and the elimination of industrial slums. Last year they made their own survey of housing conditions in the Detroit area, discovered that the average auto worker has 3.2 persons in his family, makes an average weekly wage of $34.64, cannot afford a house costing more than $3500. Further discovery that Detroit builders were putting up houses costing an average $5,530 sent them railing against the excesses of ordinary private building and plugging for the Mutual Home Ownership plan. Under this plan, originally conceived by FWA's Col. Westbrook and tried out in Camden, N. J. (see ARCH. FORUM, June, p. 423), Government money would be used to finance low cost privately-built, insured housing projects in which workers could gradually acquire full equities through monthly payments similar to rent.

Start of the Willow Run bomber plant prompted the idea of a Government-financed, worker-owned, 20,000-unit "Defense City" to be built nearby. Estimated to cost $50 millions, the project was to include schools, recreation zones, a shopping center, other elements of a well-integrated self-contained community. A scale model visualized the idea; publicity mills began grinding. Next the union's top men Walter P. Reuther and R. J. Thomas carried the idea to Washington. Public housers rallied to its support, but from snipers among jeopardized Detroit financial and realty interests came expertly directed fire. Most telling shot was the observation that so large a project would involve prohibitive problems of land acquisition and the overloading of existing water and sewage disposal systems. The scheme was branded widely as "socialistic reform."

In Washington President Roosevelt took a personal hand in the matter by indicating his endorsement in a letter to Sidney Hillman, the War Production Board's Labor chief. Despite this weighty encouragement, the scheme stalled. Defense Housing Coordinator Charles Palmer sent numerous representatives to Detroit, but no affirmative action followed. The union quickly concluded it was getting a gentle run-around, began forthwith a pressure campaign centered about the slogan, "'Chuck' must be chucked." Reorganization of the Government housing agencies into a single unit under NHAdministrator Blandford month ago and Palmer's departure to study British housing conditions are hailed accordingly as a union triumph. Temporarily at least, Blandford has the UAW-CIO's stamp of approval.

Baird Snyder III, during his brief reign as war housing czar early this year, also incurred the union's ire. Reason: Rufe Newman's handling of the Government's prefab - demountable house program. Somewhere along the line the UAW-CIO, in theory quite fond of prefabrication, has picked up the notion that the program's emphasis is not on prefabrication but on demountability—all for the sake of appeasing real estate interests fearful of what may happen to their investments after the war. To the union, mindful of the industrial slums on Detroit's outskirts, such demountability can mean only inferior design and sub-standard construction. Any suggestion of temporary housing is therefore fought tooth and nail: units designed for permanence are insisted on.

The UAW-CIO has not yet got its "Defense City," but with the problem of war transportation looming large it is in the strategic position of being able to retort I-told-you-so to carping critics. It has, in fact, softened its own stand somewhat. Instead of seeking a single 20,000-unit model community, it now thinks realistically in terms of numerous smaller projects that can be more easily hooked into existing municipal services and utilities. Architect Otis Winn has been retained as the union's housing consultant. Quietly, plans are being drafted for a series of housing co-ops.

Behind UAW-CIO's strong-armed approach to better housing lies a trail of ruffled feelings. Sorest are those whose philosophy of Building is business as usual, peace or war.

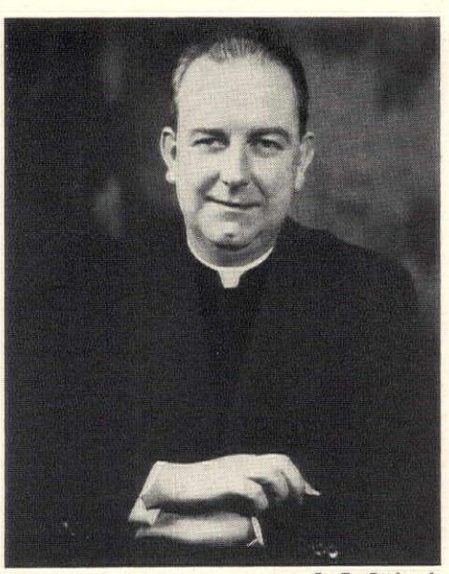
Dimensions. As the war emergency tightens, Detroit's housing problem becomes quantitative rather than qualitative. Big question is whether enough houses can be provided quickly enough. If possible, they should be of good quality; if not, then the next best—at least until better can be had. For aside from reasons of workers' morale, good housing is needed for reasons of health. As Alex L. Trout, executive secretary of the Citizens Housing and Planning Council points out, an outbreak of contagious disease would jeopardize the entire program of war production.

Unfortunately, too many of Detroit's houses fall in the undesirable category. A report by the Maternal Health League reveals numerous workers' families living in jerry-built houses without running water or toilet facilities. Some occupy canvas tents with wood floors, use kerosene lamps and oil stoves. Temporary war housing, if required, need not and clearly should not be of this type.

Even if quality considerations are ignored, it is apparent that Detroit is already running dangerously low on space accommodations. According to the latest post-office survey, 99 per cent of the city's 450,000 dwellings are occupied. Fewer than 5000 vacant houses—practically all in the higher-priced brackets—are available for the migrants expected soon to be knocking at its doors.

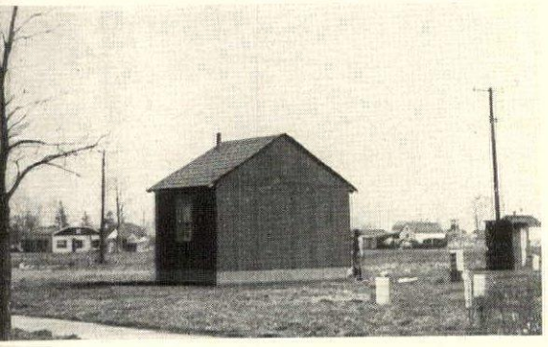
New housing obviously must be provided in a hurry. But just how much raises heated disagreement. Truth is, no one knows exactly. The housing need cannot be determined without first making employment estimates. In computing employment all sorts of assumptions must be made. Each assumption can be challenged. Determining factor is the extent to which needed factory workers can be recruited locally from among women and jobless "white collars" instead of importing them from other cities.

Detroit's Chamber of Commerce, for instance, calculates that employment rolls will soar to 650,000 by next February, up 218,000 from last June. But this increase covers only 68,000 migrants for whom extra housing must be found. The others, it is assumed, will be either women (100,000) or "white collars" (50,000) who are already living in Detroit. As argued by Willis H. Hall, secretary of the Chamber's housing committee, the bulk of the new labor supply will necessarily be drawn from local sources since the upswing in production throughout the country theoretically leaves no outside reserve of idle skills. (Paradoxically, another committee, concerned with Detroit's sugar ration,



L. F. Bachrach

FATHER RAYMOND CLANCY, chairman of the Mayor's Committee appointed to ferret out the war housing shortage facts.









Armin A. Roemer, City Plan Commission

JERRY-BUILT HOUSES burgeoning on Detroit's outskirts near the Chrysler tank arsenal explain why the factory workers strenuously oppose "temporary" war housing.

is trying to estimate as large an increase in population as may appear plausible.)

The Chamber's figures on housing contrast sharply with those used by Father Clancy's fact-finders. This committee, advised by WPB and the U. S. Employment Service, puts the increase in employment at 276,000 by June 1943, adds an allowance for new draftees (50,000), then subtracts estimates covering present unemployed employables (70,000), women and other new entrants to industry (50,000), workers drawn from Detroit's regional periphery (16,000). Result of this arithmetic is 190,000 migrants requiring housing. Thirty percent—57,000—are assumed to be unmarried workers who could be housed easily enough in temporary dormitories or in places vacated by the draftees. The other 70 percent — 133,000 — are family groups who, assuming there are 1.2 workers per family, will need 110,000 new dwelling units. As Father Clancy observes, the majority of workers coming to Detroit are likely to be older married men with dependents. They will need schools and other family services, thus aggravate the housing shortage.

Even the most optimistic calculators concede that Detroit faces a house shortage that will need everything Detroit has and can build—and then some.

Capacities. In 1940 Detroit's private builders produced 20,000 houses, last year 22,000. Early this year, alarmed by the waxing crisis, Raymond M. Foley, regional FHA administrator, addressed a meeting of 1,400 Michigan builders and exhorted greater productive effort. The local Builders' Assn. next sent a questionnaire to its 490 members, got 204 returns promising that more than 10,000 new units would be completed or under construction before July.

Since then FHA applications on houses costing $6,000 or less (the grouping qualified for priorities) have been running between 800 and 900 a week, a rate roughly 30 per cent above last year's mark. At this pace, allowing for delays, the Detroit builders should produce approximately 25,000 dwellings before year's end.

Under the Government's newly announced quota of 45,000 houses to be sprouted immediately in the Detroit area, private builders are responsible for 30,000 units, however. Theoretically, according to William J. Guinan, secretary of the Builders' Assn., this assignment can be easily met. In fact, it is argued that the private builders could and should do the entire 45,000 units. And presumably they would—except for two reasons (not counting the problem of priorities).

First catch is a reluctance to convert the house-building industry from a custom trade to standardized large-scale output. Big operators, like Detroit's George Miller, Joseph Holtzman, the Frischkorn Bros. and the Shelden Land Co., who last year turned out 300 to 600 units individually can easily double or treble their scores this year. But smaller operators who have been building and selling 25 expensive houses to 25 different clients yearly find it difficult to produce standardized larger quantities at lower price levels.

Second catch is more serious. It involves a) an expressed hostility to any building enterprise by the Government as unfair competition and b) an implicit threat to wage a sitdown until the public housers step off the scene. A $20 million project, backed by private capital and ready to go ahead, is said to have been called off abruptly when Blandford announced the Government would start immediate construction of 15,000 houses. Reason: uncertainty as to where the Federally-financed units will be located and what rentals will be charged the war workers. Government building is also viewed as bringing higher prices for construction labor, hence lower profits to local builders who must meet the same wage scales.

In rebuttal, Washington officials point out that the sites where Government-financed houses can go up are pretty well known, since obviously the new units must have water and sewer services as well as proximity to factories. Rentals in Government projects can also be determined readily enough in light of publicly declared policies.

From this, there is only one conclusion: if Detroit builders cannot or will not fulfill their share of the war housing quota, then the Government housers will take up the slack—unless big private builders from other cities see an opportunity and move in on the Detroit locale, just as they have done in Norfolk.

When the 45,000-unit housing quota is finally filled, Detroit will also be filled almost to saturation. According to George F. Emery, secretary of the Planning Commission, there is enough vacant land and enough surplus capacity in the city's present public utility systems to take care of only 50,000 additional families. New water and sewer lines must be installed at once in Detroit's outlying areas if more housing is to be built without later delay.

All factions agree that the utilities problem is one that must be tackled by the Government. There is evidence of Federal action on this front. Defense Public Works Corp. is reported to be starting immediately a $2 million booster plant which will double the water supply at Wayne, a town that lies between Willow Run and Detroit. Revealing too of things to come is Washington gossip that Tracy Augur, the TVA expert, is being assigned to the task of planning a utilities system for Willow Run housing.

Transportation. Detroit makes wheels, rides on wheels, literally exists on wheels. But through some strange quirk Detroit has been slow to react to the emergency of wheels. Even the auto workers, who were called starry-eyed when they first suggested a model community for Willow Run, can be called bleary-eyed for not recognizing sooner the need for using

their own cars more effectively. However, the UAW-CIO has begun to ponder ways and means of conserving Detroit's chief transportation assets.

Credit for pioneering a solution in rubber conservation goes to Pontiac not Detroit. In the experiment being tried there—while Detroiters sit by and watch, factory, school and business time schedules are staggered, thus breaking up the traffic peaks morning and evening. Bus lines operate more efficiently and the use of private cars is reduced. Factory employees who cannot use buses are pooling their resources to ride four or five in a car. First reports indicate the Pontiac "save your auto" plan is successful: staggering the rush hours has resulted in buses being loaded to full capacity each trip.

Detroit's system of transportation at present is clearly wasteful. Something must be done pronto. The housing problem and the transportation problem go together: one cannot be solved without reckoning with the other. And all calculations of Detroit's housing shortage are based on the assumption that adequate transportation can and will be provided.

Controls. Besides finding facts about Detroit's potential housing shortage, the Mayor's Committee has sent recommendations for a solution to President Roosevelt. Specifically:

► A stop-order on all private non-war construction should be *immediately* adopted and enforced. This would clear up doubts in builders' minds as to the availability of materials on which priorities are issued.

► A Federal agency should be set up *immediately* in the Detroit area with full powers to coordinate and administer all activities relating to local problems of housing, transportation, public utilities and other community facilities. This agency would also handle priorities, with ratings for housing equal to those given to the plants in which the workers are employed.

The Committee has gone on record too as favoring permanent rather than temporary construction for war housing. Reason: past experience has shown that temporaries are never torn down but remain occupied until they collapse from old age or their own infirmities. New shack towns for Detroit are not wanted.

What makes these recommendations significant is that they are the consensus of a group representing widely different interests. In addition to Father Clancy as chairman, the committee includes: Edward Kuhlman, president, Builders' Assn.; Edward Thal, president, AFL Building Trades Council; Henry Johnson, former president, Real Estate Board; George F. Emery, secretary, Planning Commission; George Edwards, former executive director, Housing Commission, and now a member of Detroit's Common Council; Robert H. MacRae, managing director, Council of Social Agencies; UAW-CIO's Reuther and Thomas.

WHAT TO DO

Whether Detroit must house 68,000 migrants, as the Chamber of Commerce estimates, or 190,000 as the Mayor's Committee says, the demand is much larger than can be met unless all factions work together. If Detroit fails to provide adequate housing and sanitation and transportation for its war workers, then the war program will be delayed and jeopardized. Thus, Detroit's headache becomes a headache for the entire U. S.—and no headache at all for our enemies.
These points are worth noting:

1. Essentially there is small difference between the problem in Detroit and the problems elsewhere. Detroit merely dramatizes the lesser Detroits, each with its own war housing problem.

2. The eight best building months are here; time lost now cannot be recaptured. New plants are ready to go into production and every housing day lost is critical production time lost.

3. It is as futile to expect private enterprise to solve the problem completely as to insist that Government should. The full facilities of private and public agencies must be used. The sooner that fact is recognized, the sooner will we break the war housing impasse.

NOTE TO LABOR:

Some temporary housing is necessary. It can be of the barracks type—clean, decent and airy, planned with a common dining hall and kitchen, a communal laundry, a school and recreational facilities for both children and adults. Safe space where children can play under supervision is essential so that mothers may be relieved of full-time family responsibilities and have time for outside work if they desire. The admirable temporary communities provided under the Farm Security program indicate what can be done. Concurrently with this quickly built, inexpensive shelter, permanent projects should also move forward, particularly near factories like Willow Run, which informed Detroit opinion holds will be converted to continuous post-war production. The Federal Government must provide all temporary housing and some of the permanent projects; the balance must be done by private builders.

NOTE TO PRIVATE ENTERPRISE:

Low rent housing presents new opportunities and unaccustomed problems to the private builder. With no experience to guide him, he is understandably reluctant to rush in and gamble his usually limited capital on socially desirable but financially questionable projects. It seems debatable that the Government should place a floor under wages, should finance industrial plant expansion, should give agriculture parity prices, but stop short in protecting the equally vital house builder. However, if the Government safeguards the builder's investment, he in turn must accept those reasonable standards which protect the Government's risk and protect the project as a community asset. Since few builders are experienced in large scale housing, they must pool their resources and engage competent technical advisers. They should look beyond the present emergency and recognize in large scale housing and neighborhood planning the post-war home building pattern.

NOTE TO GOVERNMENT:

The Government's choice is easy because it has no choice:

1. It must provide an adequate amount of temporary housing.
2. It must provide utilities and other services for publicly financed housing and probably for privately financed housing.
3. It must recognize that Government alone cannot supply sufficient housing and take necessary steps to move private enterprise. This means, among other things, immediate clarification of the priority situation. And it means disclosing selected sites so private builders may proceed.
4. In Detroit, because of the size of the problem, it must move in a competent, fair-minded executive with authority so the entire program can be coordinated and expedited. Detroit building needs a Kanzler.

THIS MONTH IN BUILDING THESE THINGS MADE NEWS

Administrator Blandford takes on housing as bottlenecks appear in defense areas the country over . . . Herbert Emmerich moves from OPM to head Public Housing and Leon Keyserling returns to law . . . Sullivan Jones blasts Building and builders blast priority tangles and delays . . . Non-war building stop order imminent, permits for all new building to be required . . . Rent control arrives; States race to beat Federal action . . . Army turns to housing as Japs are moved inland

BLANDFORD'S MONTH

One month to the day, following his appointment as National Housing Administrator, John B. Blandford, Jr. had set an all-time record for taciturnity. Neither in the press nor on the public platform had Blandford said a word. What he had been doing, other than to move Herbert Emmerich in to head up public housing, was largely a matter of conjecture. Net effect of the reorganization of the housing agencies (the second to take place within three months) has been to slow up the program. In conversations with a large number of people Blandford has indicated that 1) he favors much greater decentralization in determining defense housing needs—this activity to be closely coordinated with the transportation problem; 2) general speeding up of housing production by calling on local firms wherever possible.

Meanwhile, at late March, the prefabrication program was in a mess. Letters of commitment had not been confirmed by firm contracts, and lawyers had advised many prefabricators not to proceed without a contract. Lack of sufficiently high priority ratings was likewise holding back prefabricators. And finally, failure to select sites was a bottleneck. In the critical Norfolk area, it was reported that the labor turnover exceeded a thousand a month, due solely to the housing shortage. The situation in the Detroit area merely duplicated on a mammoth scale the situation elsewhere (see page 193). While these and other setbacks are not of Blandford's making, they shrieked for correction as the best building weather of the year approached. So acute was the housing shortage in numerous defense areas that the time had come for the Administrator to take down his calendar and look at his watch.

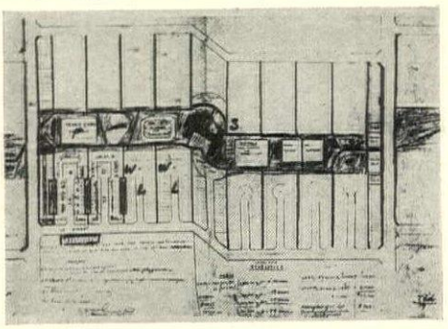
BLANDFORD'S MAN

Three weeks after the appointment of John Blandford as top man over all housing, the President once again surprised the building world by naming Herbert Emmerich to head the new Federal Public Housing Authority. Never officially in the public housing picture, Emmerich has been a ghost-like figure hovering in the background for years—perhaps because of his early days with the old City Housing Corporation (designers, builders and managers of famed and fated Sunnyside and Radburn), perhaps because he knows intimately and is known by the prime figures on the public housing front, perhaps because his private and public activities have long aligned him with progressive social movements. The President did not welcome releasing Emmerich from his post as Secretary of OPM. But the insistence of Blandford and Louis Brownlow of the Public Administration Clearing House, who also had a potent finger in Blandford's appointment, persuaded him to do so. So highly does the White House think of Emmerich that only the long-time critical position in which public housing has stayed, made the appointment mandatory. Emmerich has a gift for working with people and maintains that Congressmen are people. He is a seasoned, skillful administrator, gets things done quietly and smoothly. That he will have hourly use for these qualities everyone concedes.



Reni

HERBERT EMMERICH, often a handmaiden but never a public houser, now takes on the job of running the Federal Public Housing Authority. His task: to speed up and calm down this proverbial housing bronco. His predecessor, Leon Keyserling, moves over to General Counsel, NHA.



RADBURN, "the town for the motor age," was planned to separate foot from auto traffic. Emmerich made this sketch in 1928. Clarence Stein and the late Henry Wright developed it to the now familiar community pattern.

The new Commissioner's job gives him authority over all publicly financed housing, including that undertaken by the former USHA; Defense Homes Corporation; non-farm housing by FSA; as well as the projects heretofore handled by PBA, Division of Defense Housing and Mutual Ownership. Job No. 1, therefore, is to make effective the internal organization program established by the Rosenman report. Far more difficult however, is job No. 2 which invo'ves quick policy decisions on the over-all character of public housing produced in the war program. How much of it shall be temporary, how much permanent? How much demountable, how much prefabricated? If permanent, does the need for speed involve sacrifice of public housing standards? To mix that variety of ingredients into a nationally palatable and fast-moving housing prescription calls for super-diagnosis, a keen eye and a steady hand.

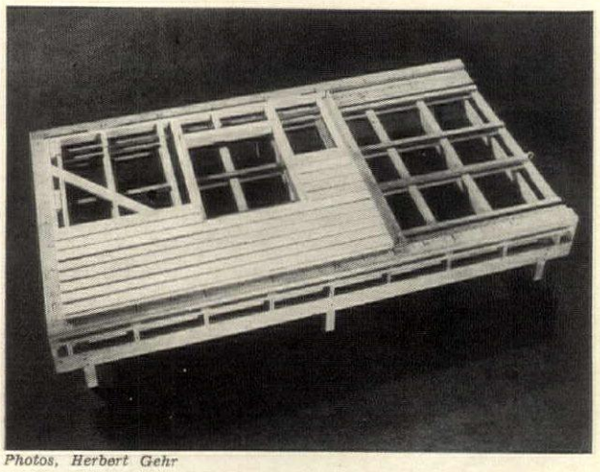
JONES BLITZES BUILDING

One night early in March Sullivan W. Jones, who looks and sometimes acts like a Greek god, arose in his Olympian fury and told the Chicago Building Congress that the construction industry had flopped on its war job. After the usual polite and rhetorical preliminaries, Jones got down to figures. "In 1941 the industry was called upon to build factories, homes, and all other war construction projects amounting to $11,580,000,000. The accomplish-

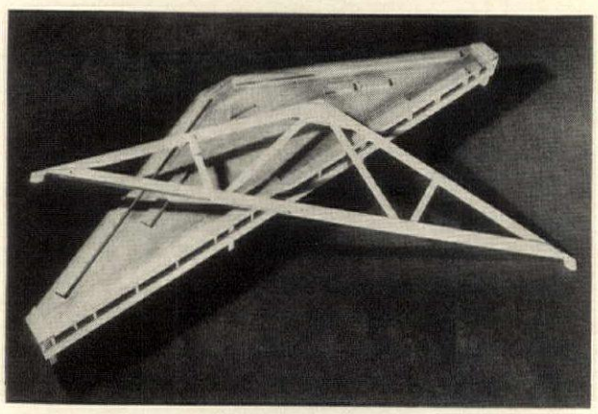
(Continued on page 38)

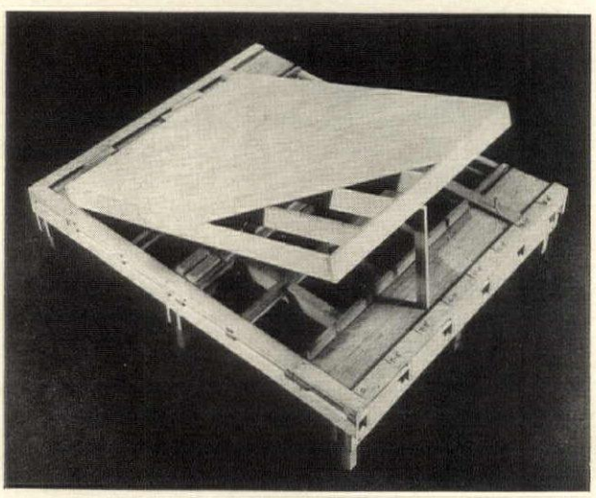
FPHA JIG TABLES FOR FIELD ASSEMBLY

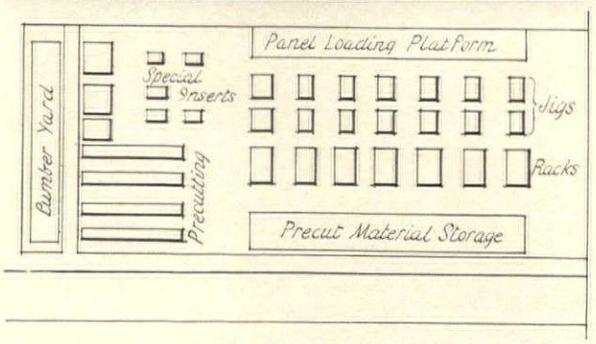
Developed by JOHN R. ROSS of the Technical Division Federal Public Housing Authority, A. C. SHIRE, Technical Director, in collaboration with the Modular Service Association



Photos, Herbert Gehr







YARD LAYOUT

Under war conditions, mass production of floor, wall and roof panels can be carried on with virtually the same efficiency at the building site as in the prefabricator's plant, and with the advantage that the completed panels need not be transported for considerable distances by truck or train. Field assembly of house parts is thus being used in many parts of the country for demountable war housing. It requires little more than ordinary contractors' equipment, only the crudest kind of "plant" facilities (circus tents are sometimes used) and can be undertaken by any builder with a good working knowledge of construction and some idea of the various methods of panel assembly recently developed under the name "prefabrication."

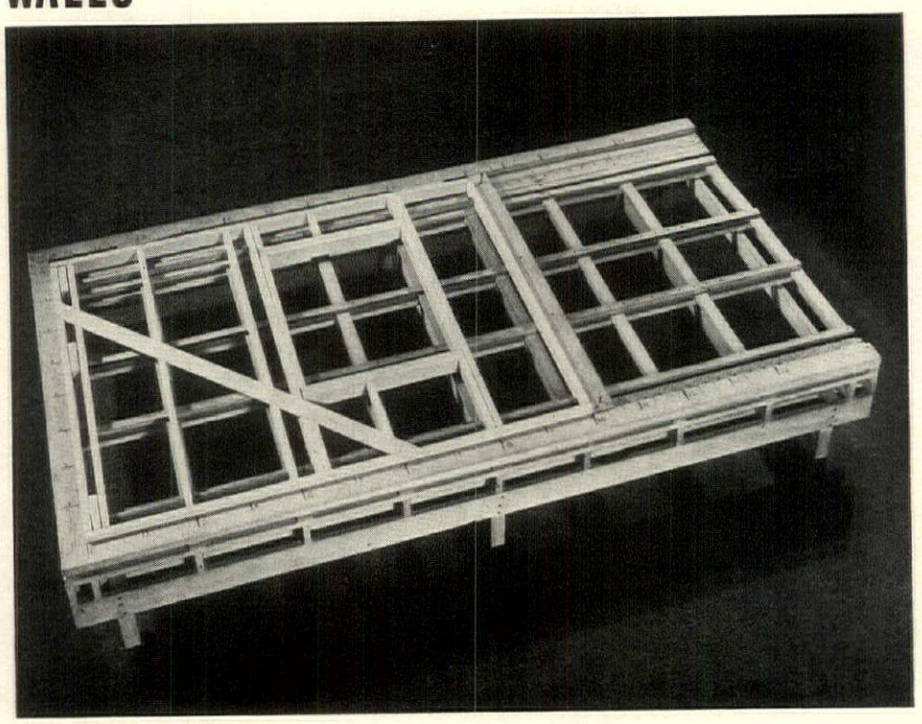
With this in mind, the United States Housing Authority, now the Federal Public Housing Authority, has developed an integrated system of panel construction adapted to any combination of ordinary frame building materials and available to builders everywhere without patent or license restrictions of any kind. Use of the FPHA method makes possible 1) full demountability within the meaning of government housing authorities' use of the term, 2) greater speed and efficiency through precutting of all framing members and quick, accurate assembly of house parts under repetitive, mass production conditions and 3) virtually uninterrupted work, since most operations involving carpentry labor are carried on under cover. It enables the conventional builder to compete on an equal footing with the prefabricator for war housing work designated as "demountable."

Basically, the method depends upon the use of 3 "jig tables" built from ordinary framing lumber and designed to position precut framing members used in the assembly of the floor, wall, ceiling and roof panels from which the houses are constructed. Through the use of a variety of templates inserted in the jigs, the tables are adapted to the assembly of panels of various sizes and types, the first jig being used for exterior wall and partition panels, ceiling and roof panels, the second for floor panels and the third for roof trusses and gable-end sections. Doors and windows may be installed on the finishing table or after panels have been erected. In addition to the jig tables, the only equipment required are material racks, finishing tables, and power saws for precutting framing members. A suggested plant layout is shown at the left. Full details, including working drawings for the jigs are given on the following pages, together with data on the "modular" layout of the panels necessary for this kind of construction.

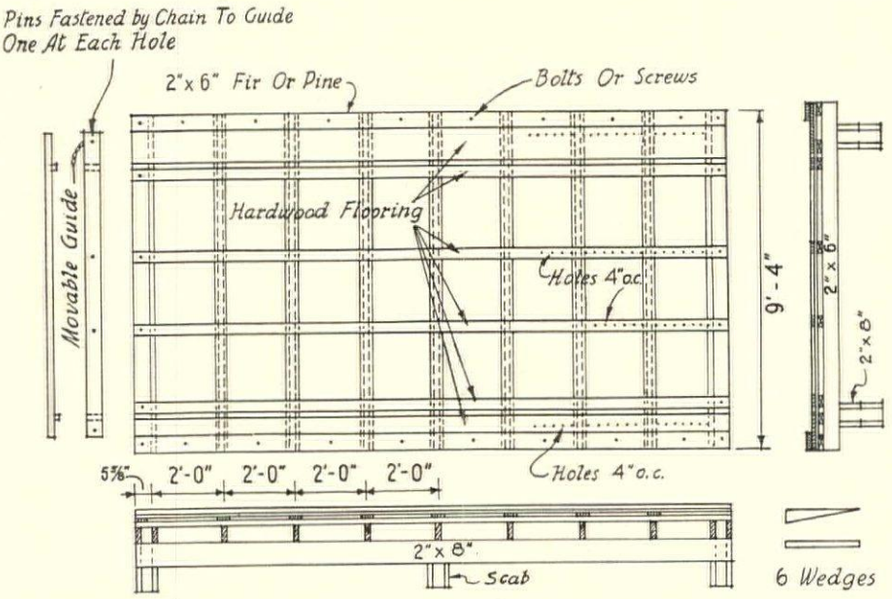
WALLS

Developed by John R. Ross

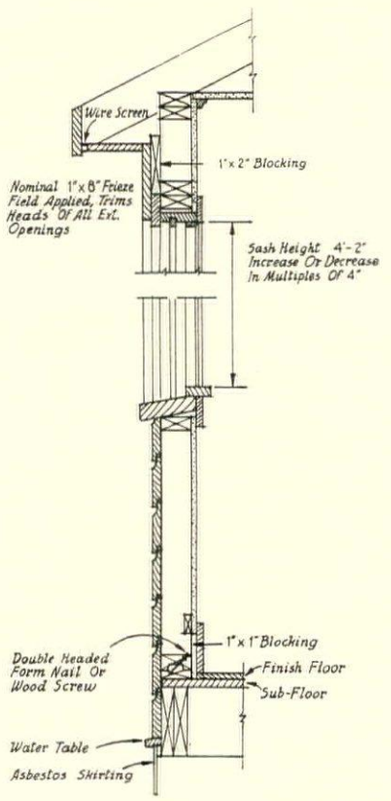
The first of the FPHA jig tables (left) is used for exterior wall and partition panels, and for ceiling and roof panels. In all of these items, framing is placed on 2 ft. centers instead of the usual 16 in. in order to conserve material. Through the use of separate template "inserts" (described on the next page) the table is adapted to the rapid assembly of pre-cut framing members for walls and partitions of various sizes, with various sized openings. After the framing members have been placed in the jig they are nailed together, diagonal bracing let in (1), and lap siding applied (2). The completed panel is then lifted off the table (3) and the cycle repeated. If interior finish is to be applied in the shop, the panel is turned over and placed on a flat finishing table for this operation. Wall section below shows how 1 x 2 in. blocking is applied to the face of the studs at the top of the wall to receive the continuous frieze board which also serves as trim.



1.

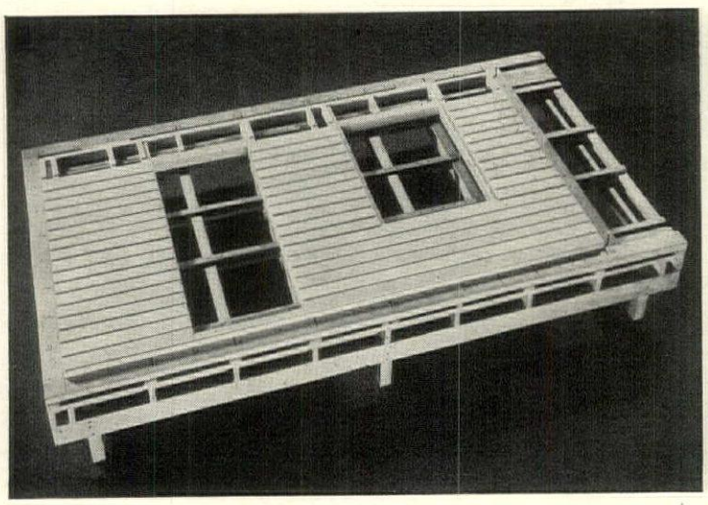


JIG TABLE FOR WALL, PARTITION, CEILING AND ROOF PANELS

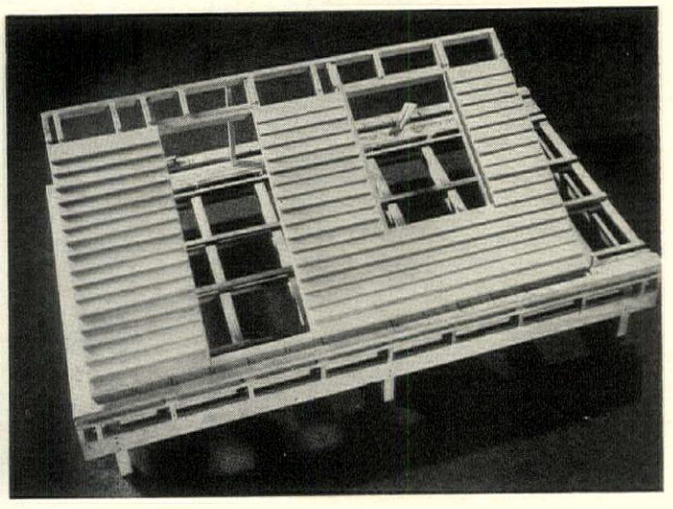


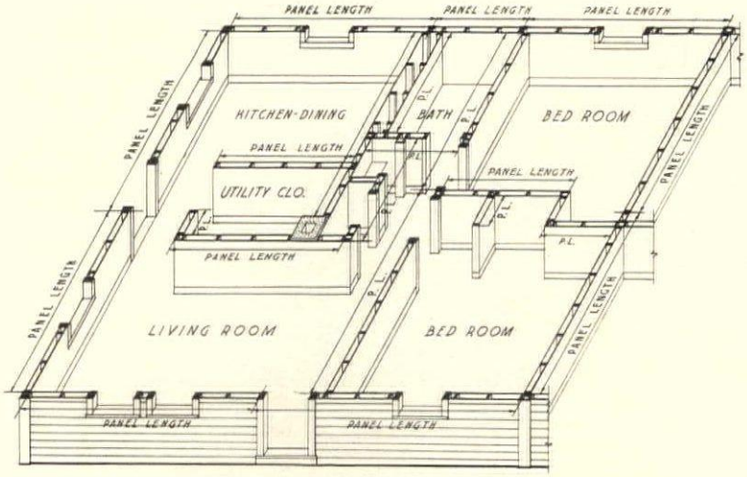
EXTERIOR WALL WINDOW

2.

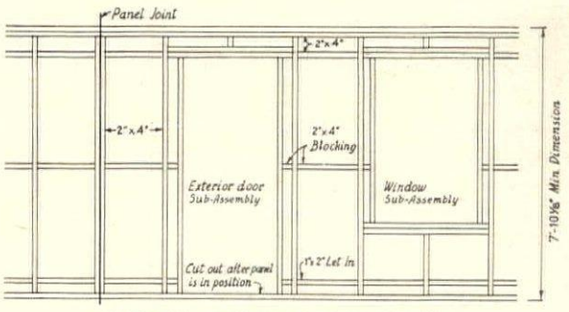


3.

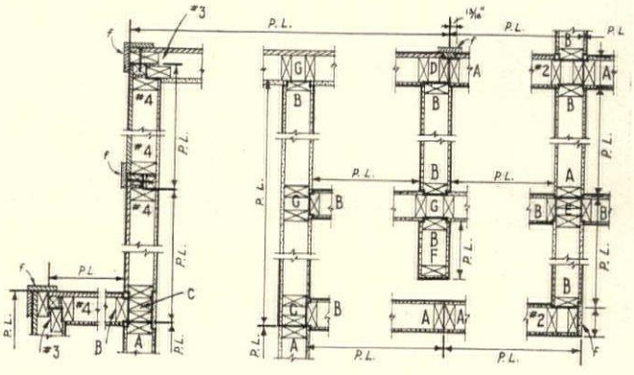




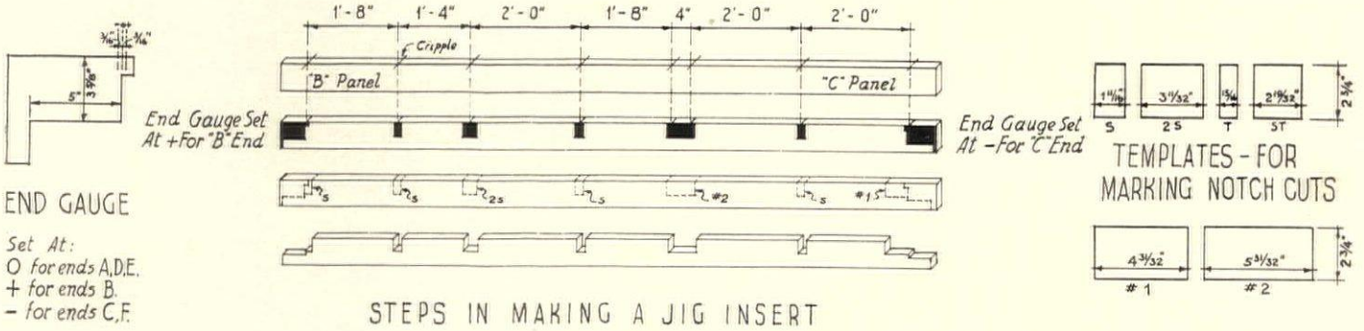
The use of panel construction always calls for a system of modular layout, in order to simplify the job of dimensioning the units, and in particular to compensate in some way for the difference between the nominal and actual size of the framing members; otherwise, plans would become hopelessly involved in fractional dimensions. The FPHA system is based on the 4 in. modular unit, and places no restriction on planning except that dimensions between nominal wall faces be multiples of this unit. The exact length of each panel is then worked out so as to compensate for the difference between the nominal and actual wall face at each connection—plus or minus 3/16 in. How this is done, through the use of metal templates for marking the jig-table inserts, is shown by the drawings at the right and below.



TYPICAL EXTERIOR WALL PANEL



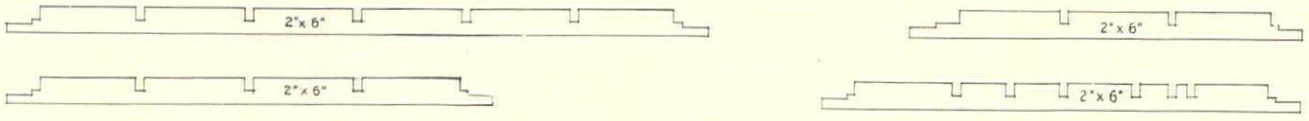
TYPICAL INTERIOR AND EXTERIOR PANEL JOINTS



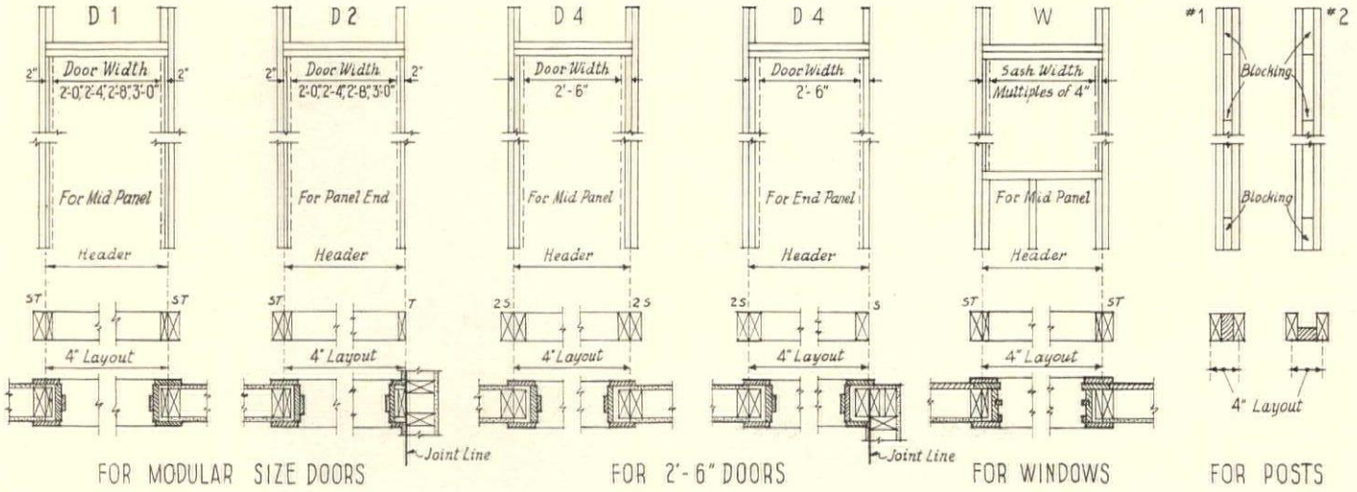
END GAUGE

STEPS IN MAKING A JIG INSERT

TEMPLATES - FOR MARKING NOTCH CUTS



TYPICAL INSERTS



FOR MODULAR SIZE DOORS

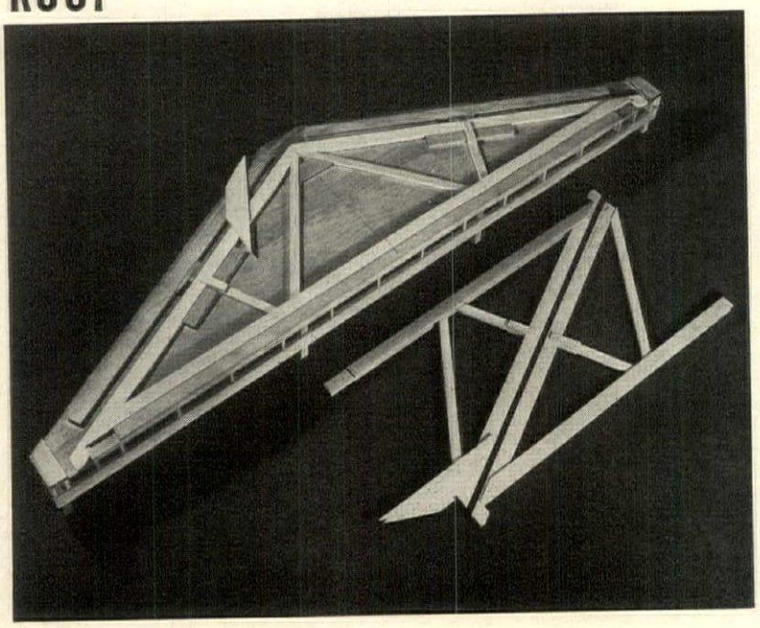
FOR 2'-6" DOORS

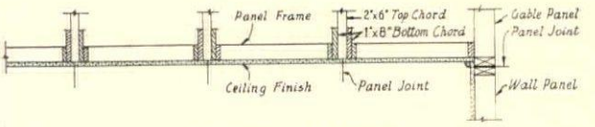
FOR WINDOWS

FOR POSTS

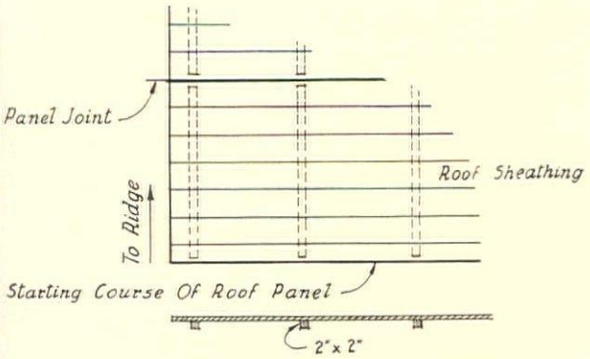
ROOF

Developed by John R. Ross



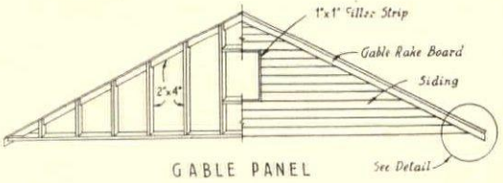


CEILING SECTION

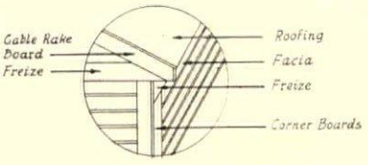


ROOF PANELS

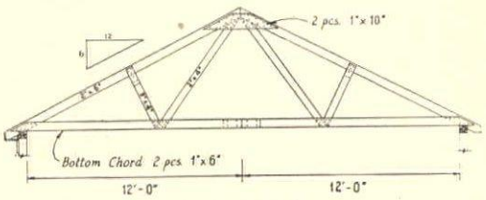
The jig table above (actually a "template" since it can be used for only one pitch and roof span) is used for the assembly of roof trusses which span the entire depth of the typical 24 ft. house, thus eliminating the need for interior bearing partitions and simplifying house assembly. The trusses, which are placed on 2 ft. centers, may be made in two parts as indicated in the photograph for easy trucking. Roof and ceiling panels, assembled on the jig table used for building the walls, are shown in the upper drawing at the right.



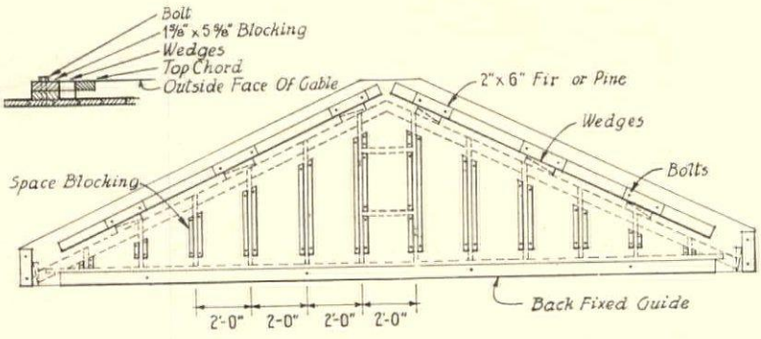
GABLE PANEL



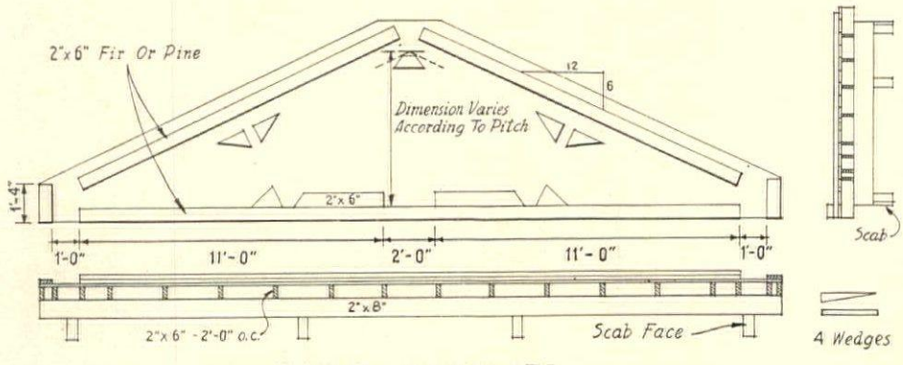
DETAIL



ROOF TRUSS

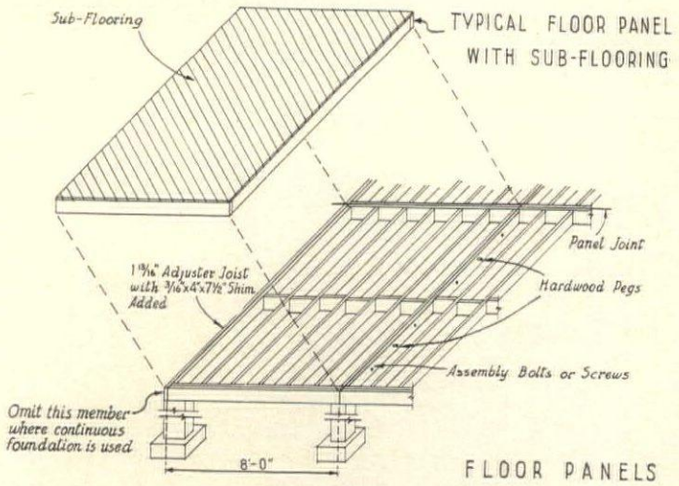


GABLE PANEL TEMPLATE

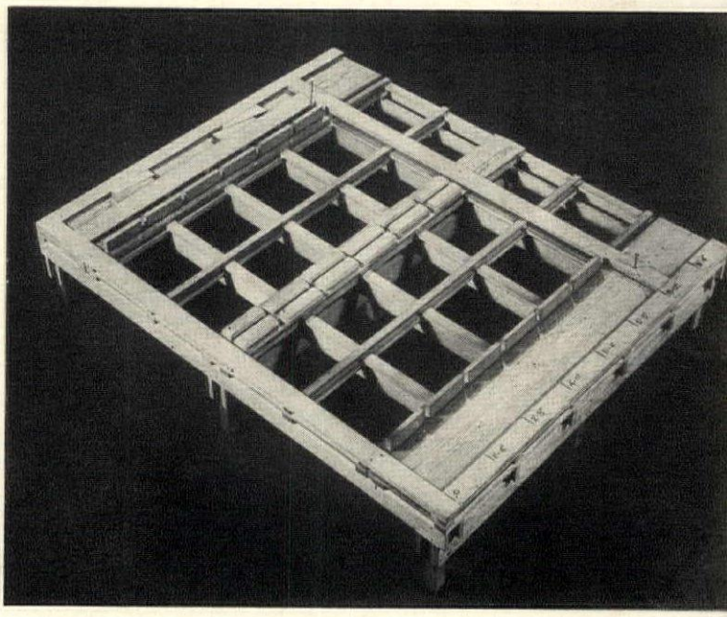


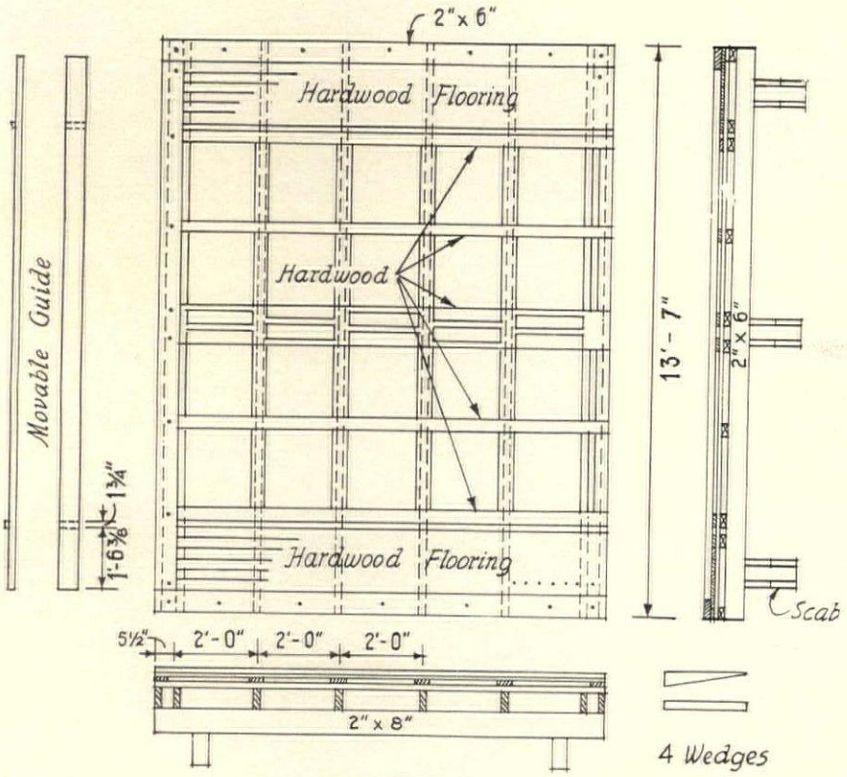
TRUSS TEMPLATE

Gable-end panels may be assembled on a table similar to that used for fabricating the trusses or on the same table if blocking to hold the studs is arranged in such a way as not to interfere with the truss members. Working drawings at the left show both of the templates required, worked out for a roof pitch of 6 : 12 and a house-depth of 24 ft. inside dimension. Gable panels are constructed in such a way that the finish siding overlaps the wall siding below, thus providing a drip for weathering over the joint. Juncture of the frieze board, rake board and projecting gable panel is shown in the isometric sketch above.



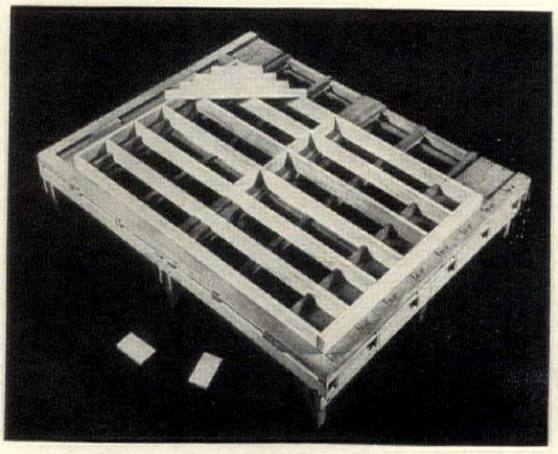
FLOOR PANELS

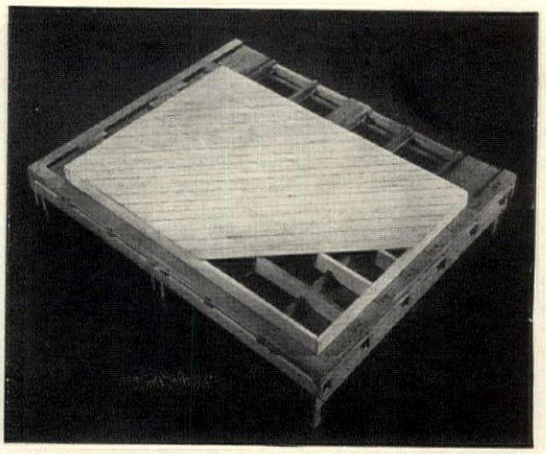




JIG TABLE FOR FLOOR PANELS

The third jig table is used for the rapid assembly of pre-cut floor joists, bridging and headers into floor panels of various widths (up to 9 ft. 4 in.) and lengths (10 ft. 4 in. to 14 ft. 4 in.). Separate template inserts, similar to those used in making the wall panels, are required for each panel width in order to position the joists at the sides of the panel in such a way as to produce an even overall dimension. Panel length is controlled by the length of the pre-cut joists. After framing members, including solid bridging, have been put in position in the jig they are nailed together and rough flooring applied. The entire assembly can then be lifted off the jig and the cycle repeated. Unlike the wall and ceiling panels, the floor panels used in the system are set on the usual 16 in. centers. Joists would normally be 2 x 8's. Method of assembling panels on a typical post foundation is shown in the drawing in the upper left-hand corner of the page, also use of a shimmed, "adjuster joist" at the ends of the floor to produce the exact overall dimension required by the wall panels.





REMODELED SALES FLOOR

SKIDMORE, OWINGS AND MERRILL, ARCHITECTS



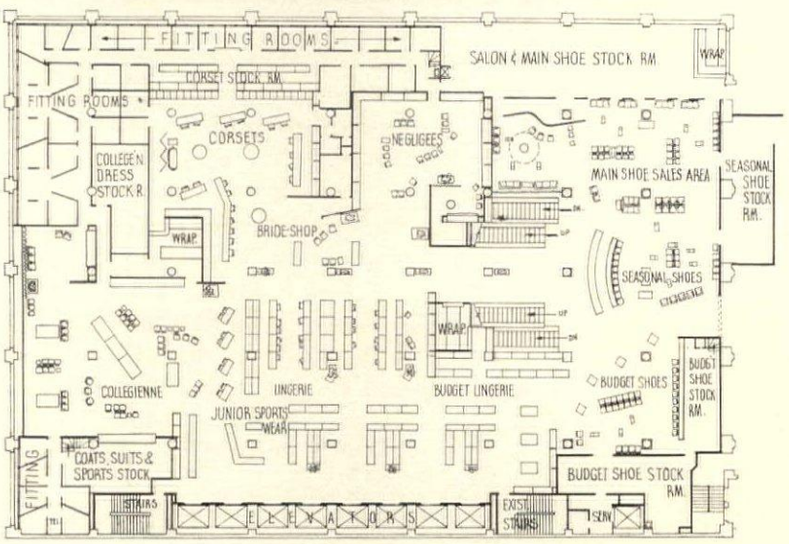
Photos, Vories Fisher

INDIANAPOLIS, INDIANA

The remodeling of the second floor of the L. S. Ayres store shows a design that is completely convincing because it was controlled throughout by merchandising requirements and possibilities. In contrast to older department store layouts, where a number of specialty shops are also grouped on one floor, this example uses few permanent backgrounds. Variations in character from one section to another has been achieved through color, lighting, furniture, wallpaper, etc., and not through "architectural" features. Because there is no way to fix, once and for all, departmental space requirements, the architects decided to provide the desired flexibility by installing the best possible acoustical ceiling, optimum lighting, and a floor well carpeted. Almost everything else in the entire area can be rearranged without trouble.







An important planning problem was the placing of the different selling units and their services. Shoes, for instance, considered an "impulse" item, had to be put where they would be seen by most of the incoming people. Those sections which require privacy are taken care of by their placing, and by the use of fitting, stock and wrapping rooms to screen them. The location of some departments was determined by the need for daylight; the Collegiate section is one of these. The photograph below shows the stock cases placed against a wall of translucent glass. An interesting application of the principle of flexibility takes place in this department. To take care of seasonal increases in business, the fitting rooms have been planned for sub-dividing in half, thus doubling their capacity.



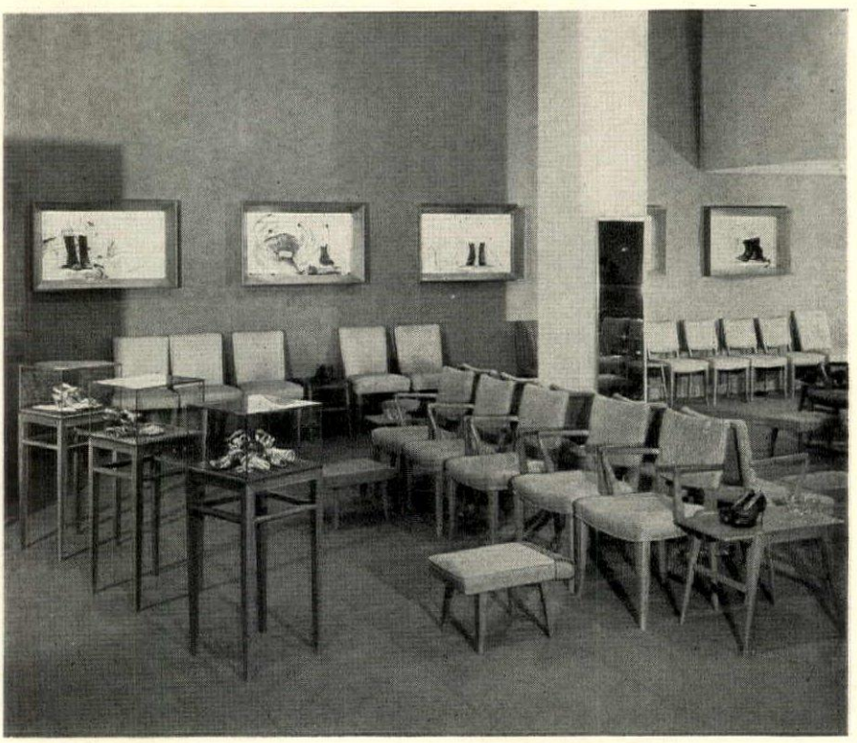
REMODELING SKIDMORE, OWINGS AND MERRILL, ARCHITECTS



INDIANAPOLIS, INDIANA



In all sections the architects had to arrange stock rooms as close to the selling areas as possible, thus reducing employes' fatigue, and also improving the service. A final, most important requirement was that the overall character of the space harmonize with the high quality merchandise sold. Here, as well as in the planning, the result was decidedly successful. Furniture, counters, display cases and storage cabinets are all handsome pieces, rich in texture and pleasing in shape.



CONSTRUCTION OUTLINE

STRUCTURE: Glass screens—Thermolux, Libbey-Owens-Ford Glass Co.
WINDOWS: Glass — Libbey-Owens-Ford Glass Co.
STAIRS AND DUMBWAITER: Stairs—steel, Engineering Metal Products Corp.
FLOOR COVERINGS: Carpet, Chas. P. Cochrane Co.
HARDWARE: Oscar C. Rixson Co., Yale & Towne and Garden City Plating & Mfg. Co.
ELECTRICAL FIXTURES: Belson Mfg. Co.
HEATING AND AIR CONDITIONING: System designed by Samuel R. Lewis, using Carrier Corp. units. Grilles—Tuttle & Bailey. Thermostats and regulators—Powers Regulator Co.

THREE RETAIL STORES
FOR SEARS, ROEBUCK & CO.

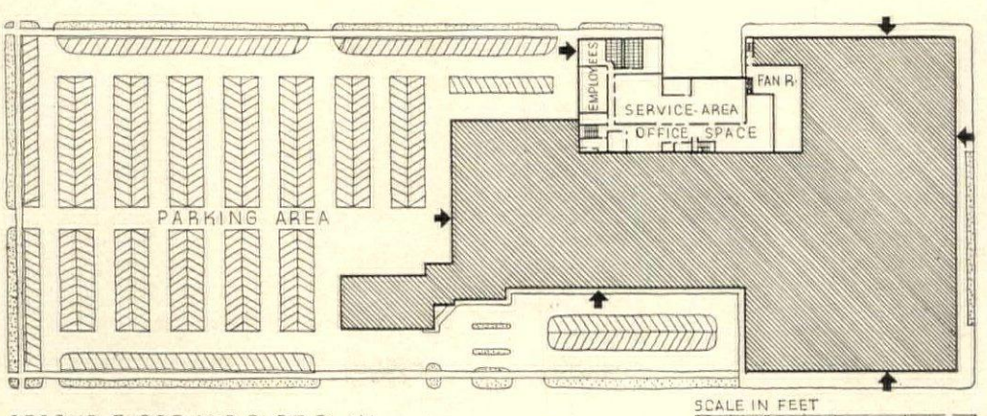
JOHN S. REDDEN, ARCHITECT
JOHN G. RABEN, DESIGNER

A. C. Kelly



RETAIL STORE IN BIRMINGHAM, ALABAMA

DANIEL CONSTRUCTION CO., GENERAL CONTRACTOR



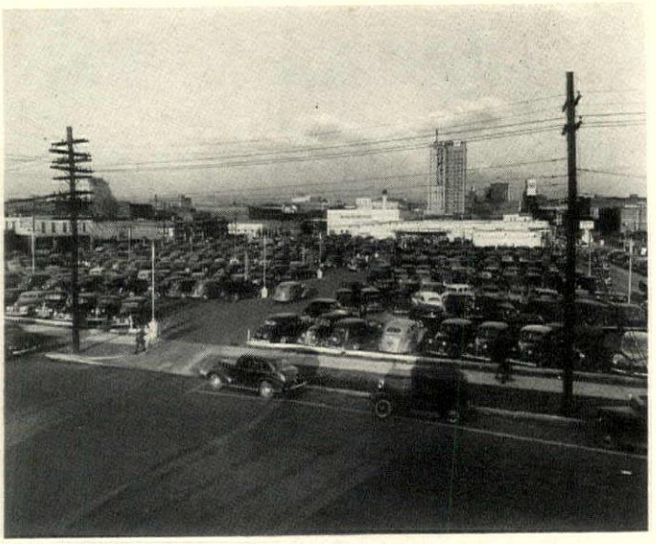
SECOND FLOOR AND PLOT PLAN

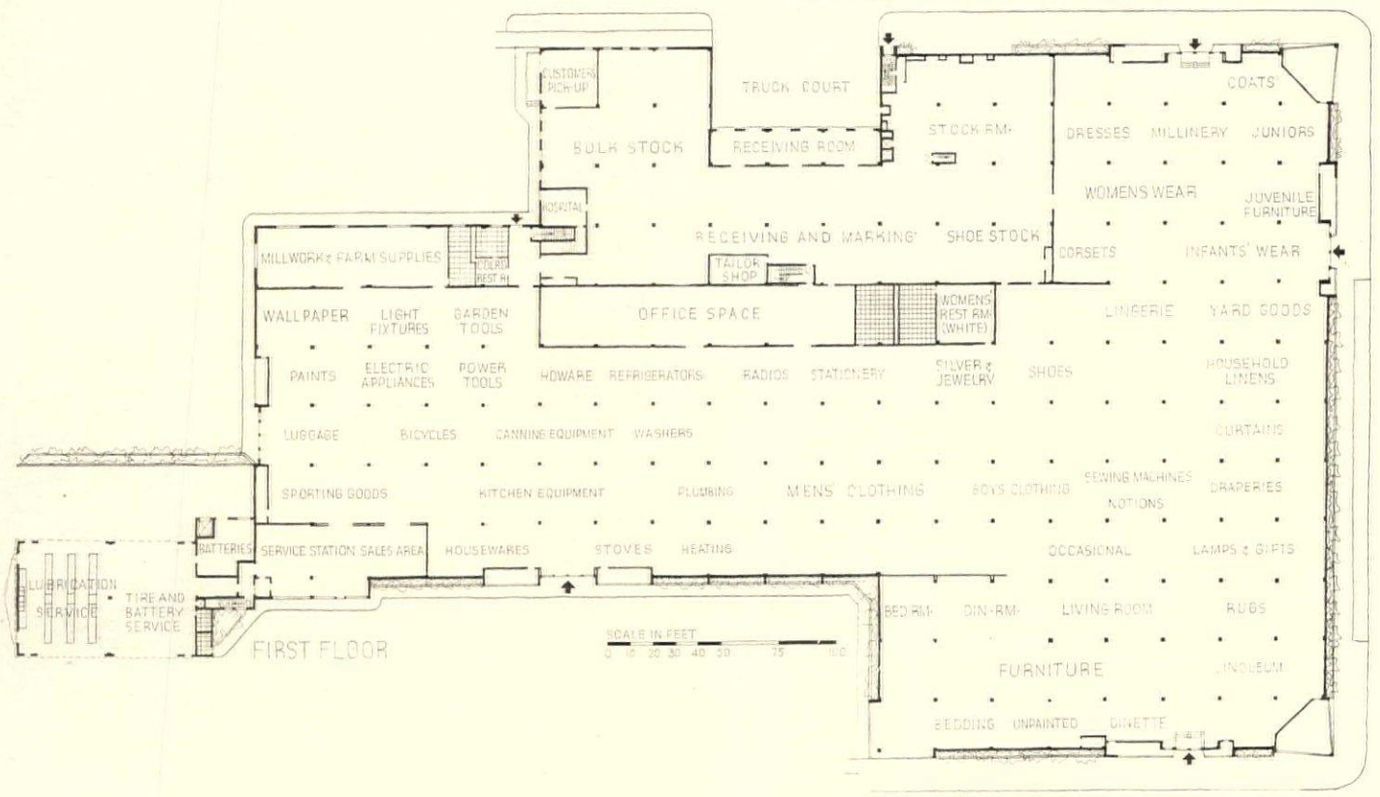
RETAIL STORE IN BIRMINGHAM, ALABAMA

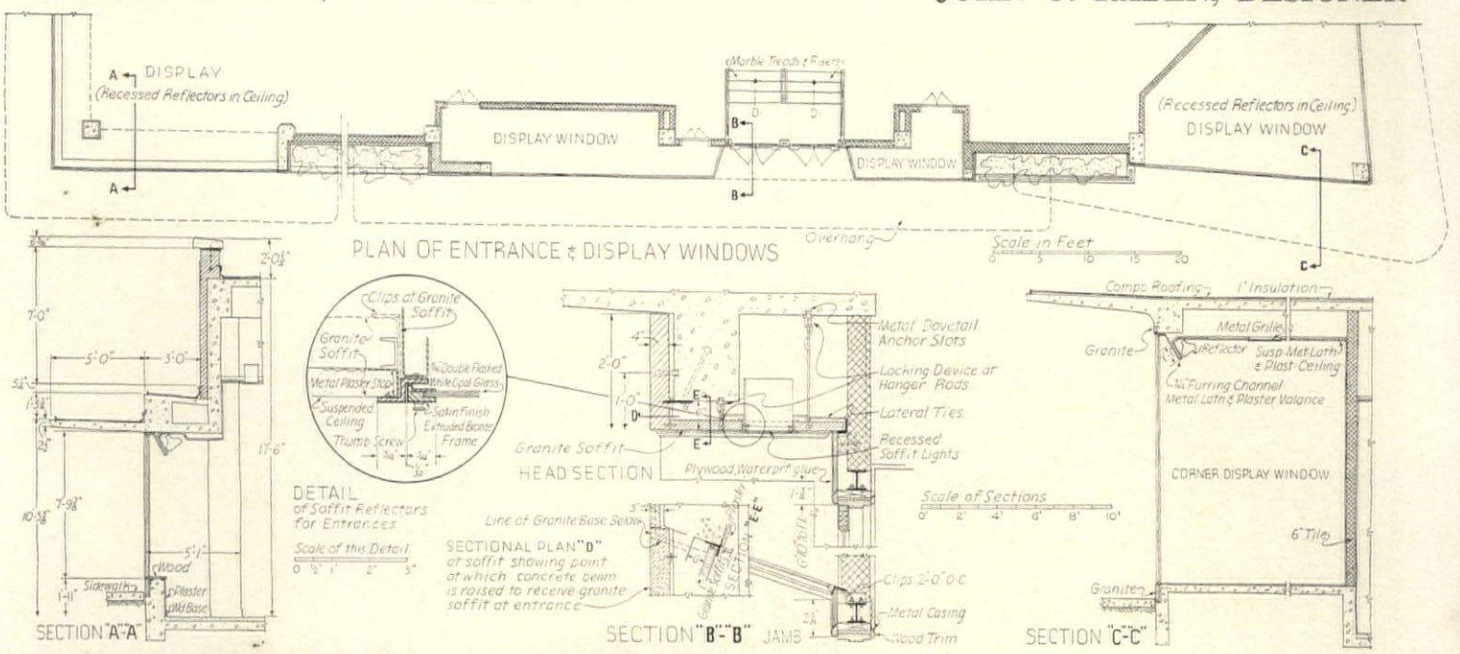


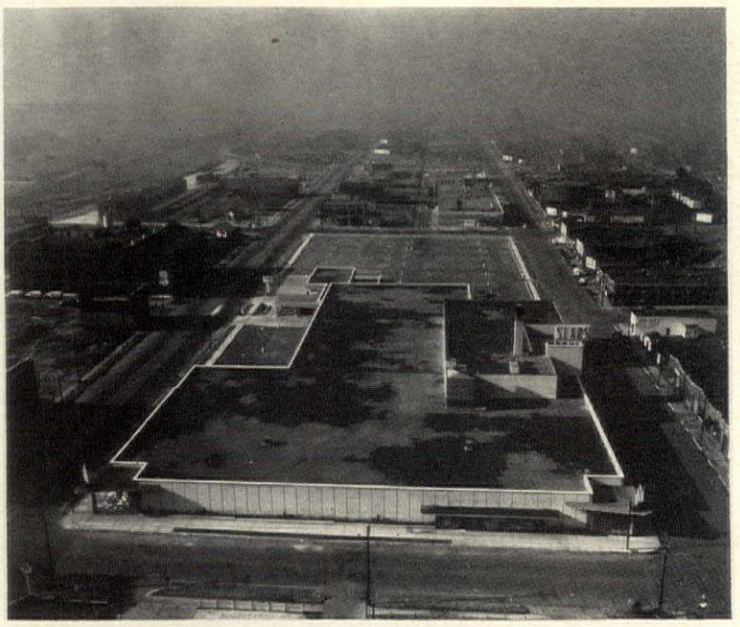
Photos, A. C. Kelly

Sears Roebuck's retail stores may not have begun the practice of making parking areas an integral part of a retail trade outlet, but they have unquestionably developed the technique to its highest point. These stores do not differ in any important way from the department stores with which they compete, except perhaps for the emphasis put on inexpensive merchandise. They do, however, enjoy the great advantage of having been started fairly recently and so in consequence have avoided the congested downtown districts and use large, relatively inexpensive sites. While no figures have been made available, the provision of an ample parking space must be a strong inducement to shoppers. In all three of the stores shown, this parking area has been made a feature, and has been tied in with service stations which handle Sears' automobile accessories.









The Birmingham store is a one-story building, with loading and storage at the ground floor level. The plan shows a uniform grid of columns, entirely open except for the service area. According to the designers a one-floor arrangement has many advantages, chief of which is the ease with which departments can be shifted or enlarged to take care of seasonal changes in demand. As in all Sears stores, the equipment and fixtures are standardized, with provision for some variation in types of displays.

CONSTRUCTION OUTLINE

STRUCTURE: Floors—reenforced concrete, terrazzo, Art Mosaic Tile Co. or Linotile, Armstrong Cork Co.
ROOF: Four-ply, Koppers Co.
SHEET METAL WORK: Flashing—copper, The Cheney Co.
INSULATION: Roof—cork board, Armstrong Cork Co.
WINDOWS: Sash and screens—Ceco Steel Products Co. Glass—Pittsburgh Plate Glass Co.
HARDWARE: Lockwood Hardware Mfg. Co.
DOORS: Garage doors—J. G. Wilson Co.
ELECTRICAL INSTALLATION: Panels and switchboards—Westinghouse Electric & Mfg. Co.
PLUMBING: Hot and cold water pipes—Youngstown Sheet & Tube Co. Pumps—Chicago Pump Co. Valves—Crane Co. Sprinklers—Automatic Sprinkler Corp. of America.
HEATING AND AIR CONDITIONING: Air conditioning—Carrier Corp. Boiler and stokers—Brownell Boiler Co. Pumps—Nash Engineering Co. and Dayton-Dowd Co. Water heaters—Patterson-Kelley Co. Temperature control—Powers Regulator Co. Heating specialties—Sarco Co. Grilles—Barber-Colman Co. Radiators—American Radiator Co. Valves—Ohio Injector Co. Unit heater—McQuay Co. Fans—Clarage Fan Co.





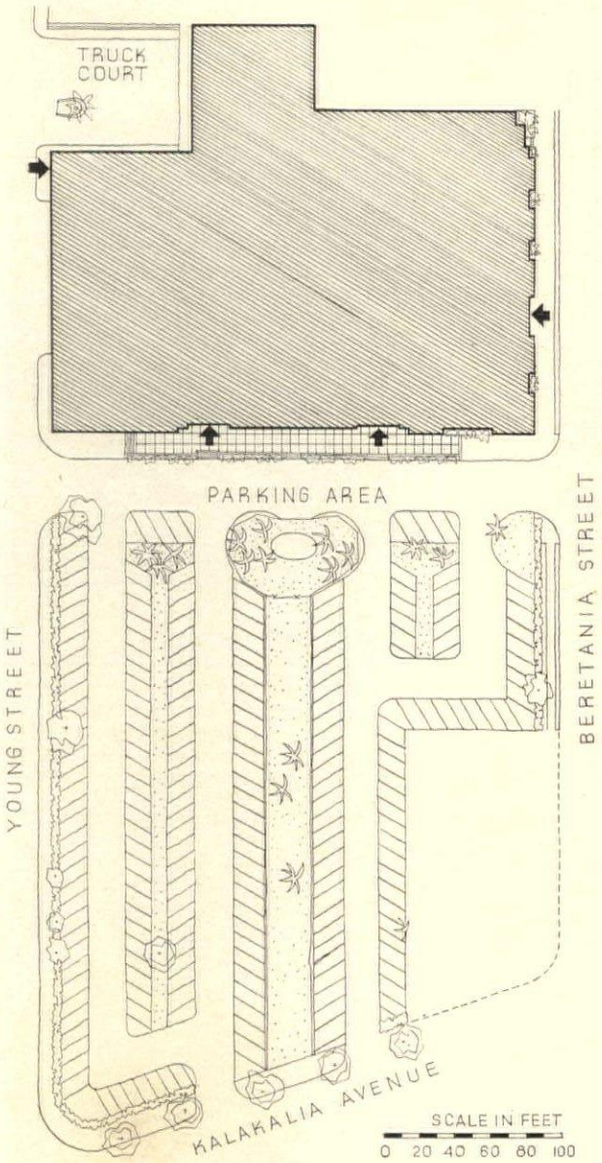
RETAIL STORE IN HONOLULU, T. H.

GUY N. ROTHWELL, ARCHITECT

E. C. ABRAMS, ASSOCIATE

JOHN G. RABEN, ASSOCIATE DESIGNER





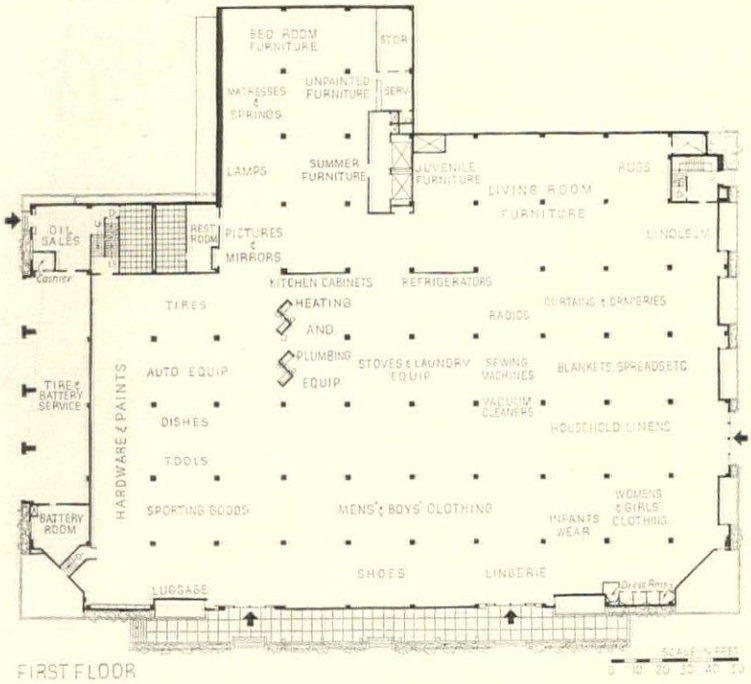


In the Honolulu project the building has been set at the back of the property, with the parking area separating the store from the avenue. The effect, as shown in the upper photograph on the facing page, is very pleasant, with the palms offering a striking contrast to the low white building. The success of this arrangement suggests that a few trees in some of the other parking spaces might not be a bad investment. This store differs from many of the others in its use as a mail order warehouse, and some 50,000 square feet were provided in the basement for this purpose. The exterior treatment is typical of all the newer stores, except for the special cantilevered overhangs which shelter windows and entrances.

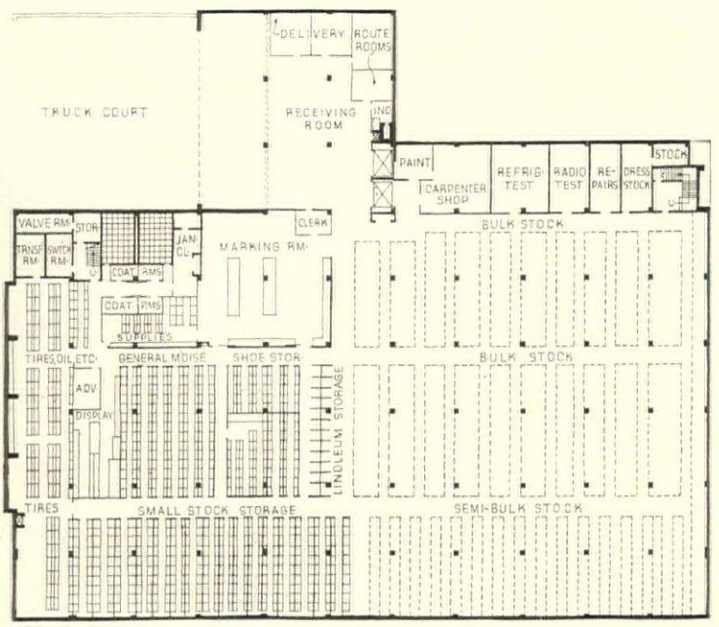


RETAIL STORE IN HONOLULU, T. H.

SEARS, ROEBUCK & CO.



FIRST FLOOR



BASEMENT



CONSTRUCTION OUTLINE

STRUCTURE: Exterior walls—reenforced concrete. Floors—reenforced concrete or terrazzo, Consolidated Terrazzo Co.'s, Inc.
WINDOWS: Sash — steel, Theodore H. Davies Co., Ltd. Show windows—extruded bronze.
ELEVATORS AND DUMBWAITERS: Otis Elevator Co.
HARDWARE: Yale & Towne.
DOORS: A. J. Bayer Co., Probert Mfg. Co., J. G. Wilson Corp. and American Factors, Ltd.
PAINTS: Illinois Paint Works and Pacific Paint & Varnish Co.

RALPH E. WOOLLEY,
GENERAL CONTRACTOR





RETAIL STORE IN WASHINGTON, D. C.

JOHN S. REDDEN, ARCHITECT
JOHN G. RABEN, ASSOCIATE DESIGNER



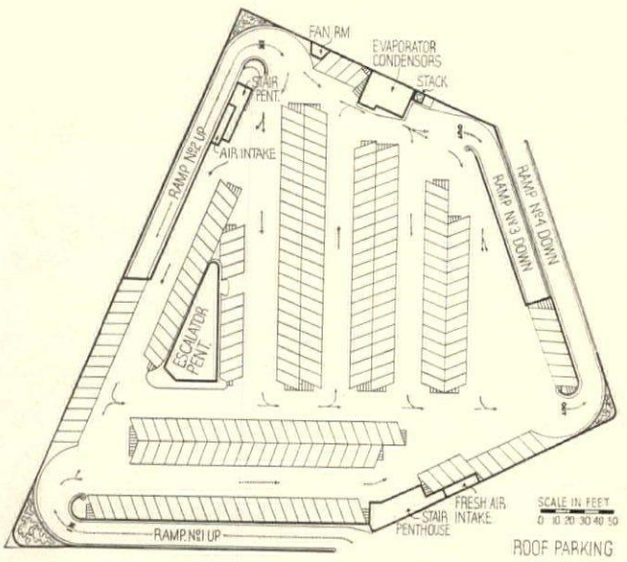
RETAIL STORE IN WASHINGTON, D. C.



RAMP TO ROOF PARKING



ROOF PARKING

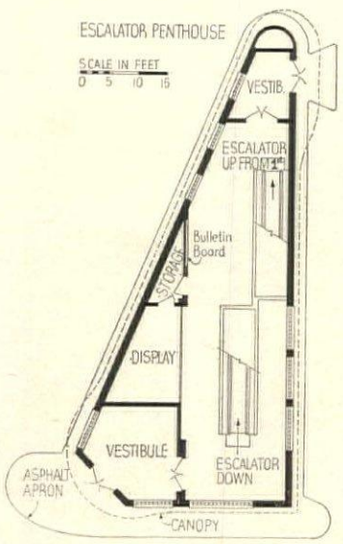


ROOF PARKING



ESCALATOR PENTHOUSE

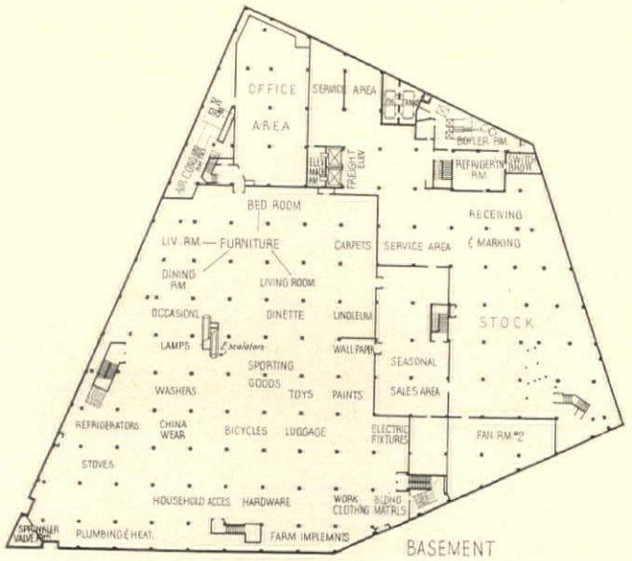
RAMP TO ROOF

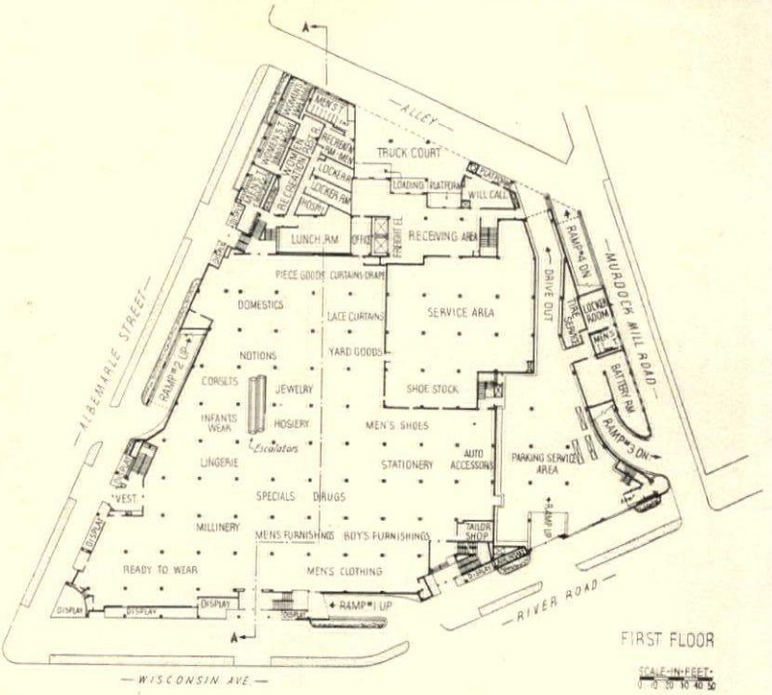


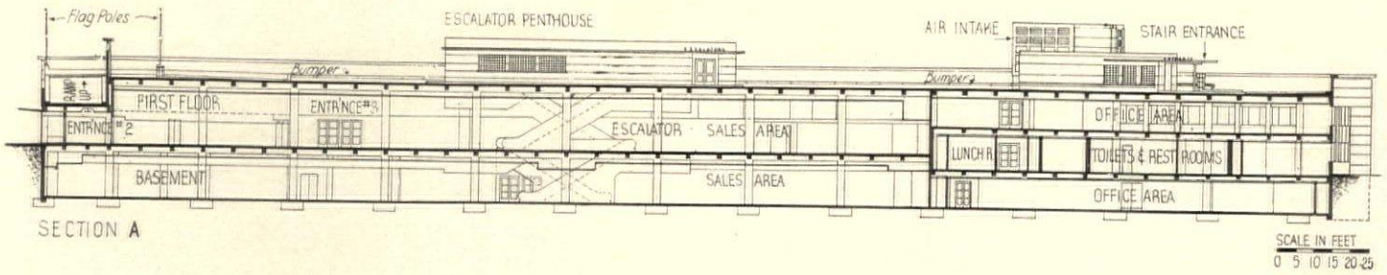


JOHN S. REDDEN, ARCHITECT

JOHN G. RABEN, ASSOCIATE DESIGNER

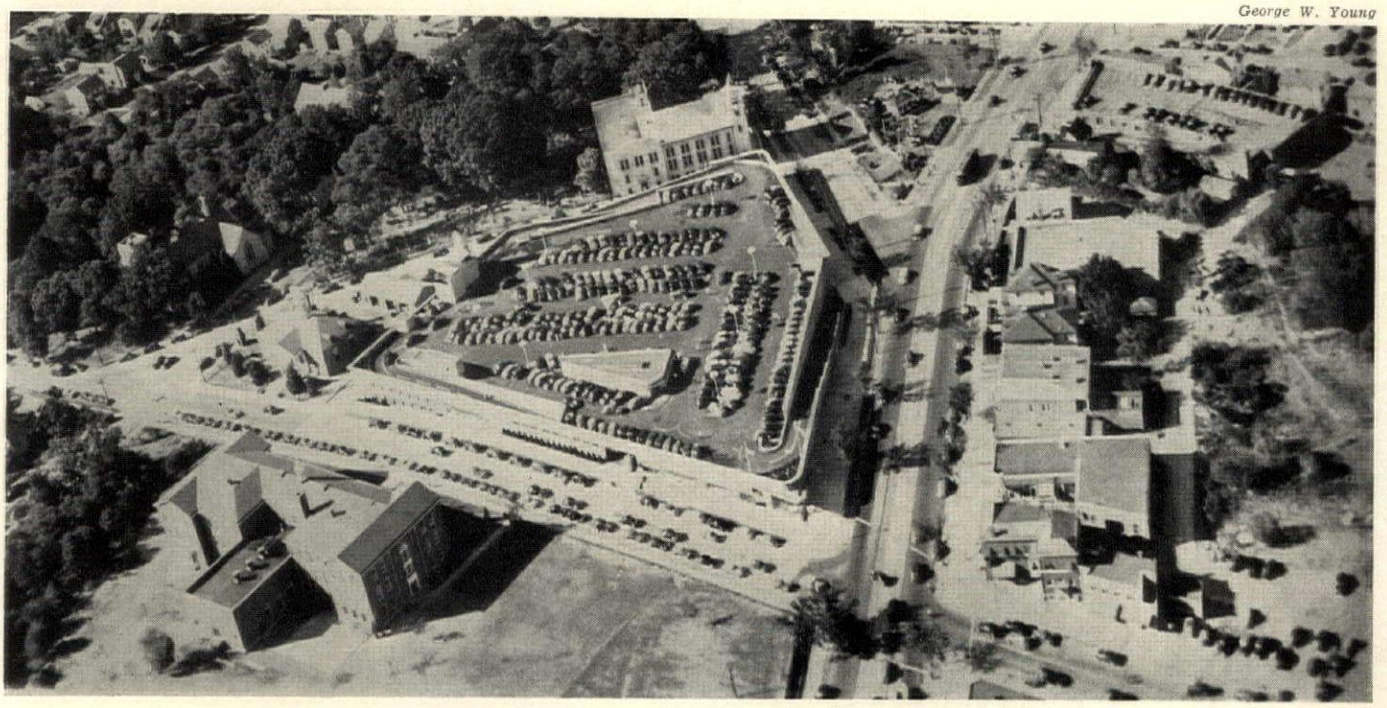




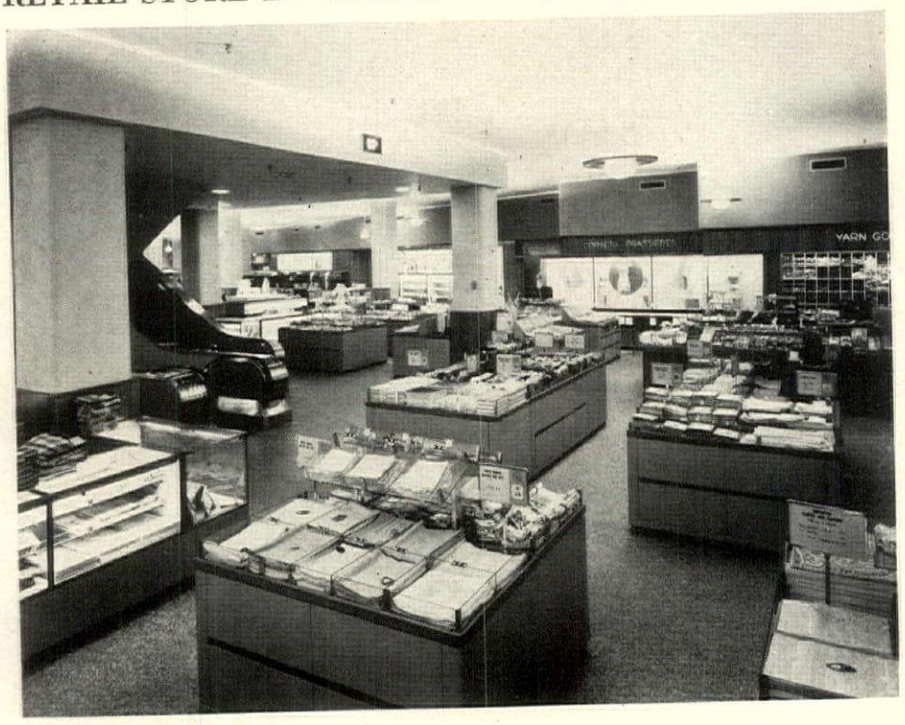


The importance attached to parking space is dramatically shown in the aerial photograph of the Washington store, where a small and irregular site made necessary use of the roof for this purpose. Reenforced concrete was used for the structure, and on exterior walls it was textured by rough lumber forms and left exposed. Sales areas are divided between the first floor and a basement, the latter being used for tools, hardware, building materials and other "hard" lines of merchandise. The section indicates the relationship between the sales floors and parking level.

George W. Young



RETAIL STORE IN WASHINGTON, D. C. FOR SEARS, ROEBUCK & CO.



CONSTRUCTION OUTLINE

STRUCTURE: Exterior walls—reenforced concrete.
ROOF: Five-ply built-up asphalt, Rubberoid Co. Parking deck—premixed asphalt, Helsing Co.
INSULATION: Roof—Keasbey & Mattison.
WINDOWS: Sash—metal, double hung, S. J. Pomeroy Co.; projection, Mesker Co. Show windows—extruded bronze, Kawneer Co. Glass—Pittsburgh Plate Glass Co.
ELEVATORS, ESCALATORS AND DUMB-WAITERS: Otis Elevator Co.
HARDWARE: Lockwood Hardware Mfg. Co.
DOORS: Dahlstrom Metallic Door Co., Kinnear Mfg. Co. Garage doors—Overhead Door Corp.
ELECTRICAL INSTALLATION: Lighting—Pittsburgh Reflector Co. and Benjamin Electric Co. Show window control—Major Equipment Co.
PLUMBING: Valves and fittings—Crane Co. Sprinklers—Central Automatic Sprinkler Co.
HEATING AND AIR CONDITIONING: Vacuum steam system. Air conditioning—Carrier Corp. Boilers—Brownell Boiler Co. Oil burners—Johnson Oil Burner Co. Water heaters—Patterson-Kelley Co., Inc. Temperature control—Powers Regulator Co. Grilles—Barber-Colman Co. Radiators—American Radiator Co. Valves—Crane Co. and Sarco Co. Pumps—Chicago Pump Co. and Buffalo Pump Co. Coils—Trane Co. and McQuay Co. Fans—B. F. Sturtevant Co.

JOHN S. REDDEN, ARCHITECT
JOHN G. RABEN, ASSOCIATE DESIGNER

CONSOLIDATED ENGINEERING CO.,
GENERAL CONTRACTOR



THE PUBLIC TENANT SPEAKS

by Leonard Wayman, Architect

Drawings by Madelaine Thatcher

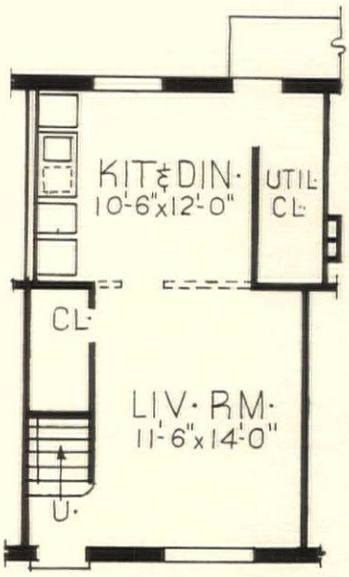
During the past 10 months the writer has visited well over a hundred public housing projects all over the U. S. and has interviewed tenants and managers at most of them. In an attempt to study actual activities within the dwelling units and to discover both strong and weak points in design a systematic questioning was made of 30 tenants of similar row houses. The survey covered 15 typical 2-bedroom houses and 15 typical 3-bedroom houses in projects in 8 northern cities. Although the study was limited to a particular house plan for the sake of simplicity and uniformity, the results can be applied to other types as well and, in fact, to all kinds of housing for low-income groups.

The housewife was questioned in every one of the 30 cases. The writer had learned earlier that the housewife knew the problems much more intimately than did her husband, and could discuss them in detail from her experience. When requested to answer some questions about the plan of her home, her usual first answer was "It's just swell; there isn't a thing wrong with it."

After a few questions the "bugs" were revealed, especially in the laundry and storage department. Finally she would warm up to pointing out all of the problems and would answer all of the questions very intelligently and in detail. The interviews lasted from 40 minutes to 2 hours each. After they were over, the usual last remarks were a sincere assurance that it was a wonderful place in which to live and bring up children, immeasurably better than what they had had before.

The fact that Mr. Wayman's notes are presented in sprightly fashion should detract nothing from the profound points he makes. This little one-man poll should interest particularly all those engaged in war housing and post-war planning.

—The Editors



To permit comparisons, the study was limited to a simple plan type.

LIVING ROOM

1 SIZE. *Would you want a larger or smaller living room?*

Twenty housewives out of thirty liked the living room as it was (see plan)* because: "It's cozy . . . I don't need so much furniture to fill it up . . . I don't have to sit too far away to talk to others . . . I just like it."

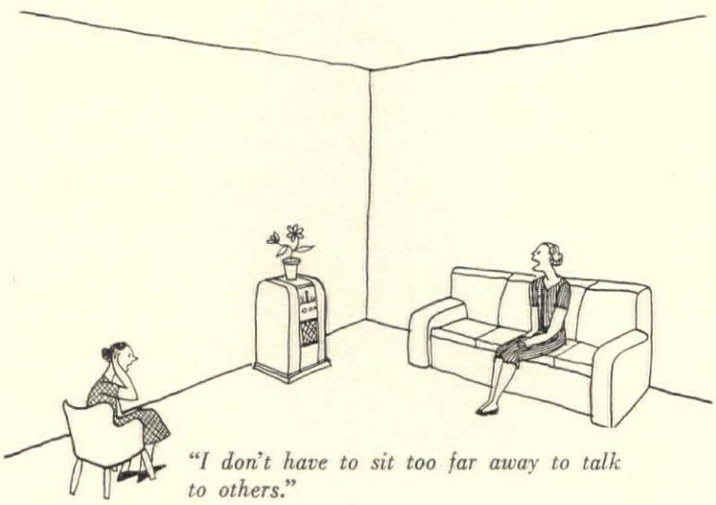
Two housewives wanted a feeling of more space, one wanted more space on the floor for the children, three needed more area because of pianos.

This indicates that various sizes of living rooms should be provided for varying family requirements. In some projects two-bedroom units had the same size living room as four-bedroom units. The tenant selection department should analyze the living room requirements of the applicant and try to assign the unit with the most suitable living room. It is worth noting that so many did not want a larger living room. The proportions of the room could be more pleasing and better for furniture arrangements.

2 DINING. *If your living room were larger would you prefer to eat your meals in the living room or the kitchen?*

All preferred the kitchen because they did not want to feed the children in the living room on account of the mess; the kitchen was handier and required less walking on "hard floors."

3 DOOR TO KITCHEN. *Do you usually close the door between the living room and kitchen when preparing food or doing laundry?*



"I don't have to sit too far away to talk to others."

In all of the units which had a door between the kitchen and the living room, the door was closed in half of the cases to prevent cooking odors and laundry vapors from spreading through the home, to keep noises out of the living room, for better appearance (especially when there was company) and to keep the toddler in the kitchen. Where there were no doors, and large openings, 50 per cent of the housewives wanted a door. Most of them complained of the spreading of grease, odors and vapors, but did not mind the noise. They did not like the appearance of the kitchen-living room combination (I didn't either).

*Since this was the first question, the answers were usually given with a feeling of wanting to impress the interviewer with their satisfaction with the home. This may have influenced the answer somewhat although I carefully explained my mission before asking any questions.



"I don't like the looks of a sink full of dirty dishes and other mess near the table."

4 KITCHEN DINING. *Do you mind eating in the kitchen?*

No one objected to eating breakfast and lunch in the kitchen, but some would have preferred a dining room for dinners.

Typical comments:

"Not at all; it's handy and easy to keep clean."

"It's easy to feed the kids in the kitchen."

"I would prefer not to feed company in the kitchen."

"We would like to eat our dinners in a dining room."

5 DINETTE. *Would you prefer a dinette? Why?*

Sixty per cent of the housewives preferred a dinette and the rest were content to eat in the kitchen.

"I would prefer a dinette for company."

"I would like the feeling of a separate space for dining."

"My husband does not like to eat in the kitchen because he has been used to a dining room."

"I would like a dinette because I don't like the looks of a sink full of pots and pans and other mess near the table when we are eating."

"I would not care for a dinette because it would make more work."

They would prefer the dinette very handy to the kitchen, not as a part of the living room. Some suggested cabinets for a partial separation between the two spaces. In most cases they wanted to keep the living room spic and span as the "best room" in the house.



"The children study in the kitchen because the best table and the most light are there."

6 USE. *How much time do you spend in the kitchen?*

Almost every housewife spent most of her day in the kitchen. Usually she got through in the kitchen around two in the afternoon after working there all morning. She began again at five, completing her work about seven-thirty.

7 CABINETS. *Do you have enough cabinets?*

In most cases enough over-counter cabinets had been provided, but they were hung too high. Where cabinets had no doors the unanimous complaint was that dust settled on the dishes. In many projects no compartment had been provided for silver, and work table space was insufficient. In some kitchens there was not room for pots and pans. Otherwise, the usual strip kitchen arrangement was popular.

8 PLAY. *While indoors, where do the children play most of the time? Why?*

In 15 out of 30 cases the children played mostly in the kitchen, in 10 cases mostly in the living room and in 5 cases in the bedrooms.

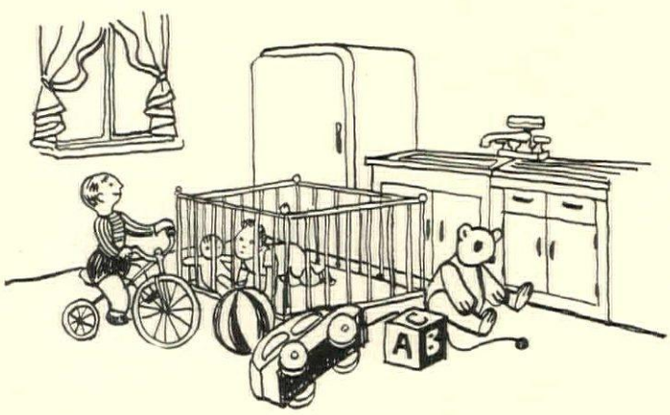
"The tot is always in the kitchen with me because I must keep an eye on him."

"My little boy plays in the kitchen because he doesn't like to be alone."

"I want the older kids to play in the kitchen because I don't want the living room messed up."

"The children play in their bedrooms because the toys are up there."

Downstairs the toys were usually kept in the so-called utility closet in the kitchen or in the closet under the stairs.



"The kids play in the kitchen because I don't want the living room messed up."

9 STUDY. *Where do the children study?*

In 20 out of 30 cases the children studied in the kitchen because the best table and the most light were there. In 4 families they studied in the bedrooms and in 6 cases the living room.

The kitchen-dining room needs more study. It is the most used room in the home and the activities in it are complex as shown by this survey. A dinette-play-study-work room would be worth its cost if it were carefully designed for all these uses.



" . . . making 3 or 4 trips."

10 LAUNDRY PROCEDURE. *How do you actually do your laundry?*

This is how Mrs. Jones does her weekly washing for a family of five in a community laundry:

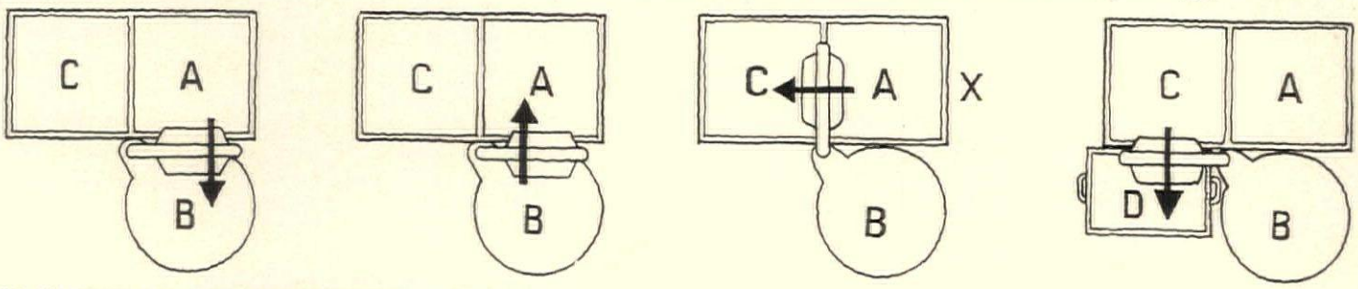
She carries the soiled clothes in a basket from her home to the laundry room in the basement of the next building, making 3 or 4 trips. She must also carry her clothes line, pins, soap, water softener, bleach and the detachable parts of her machine, which might be stolen if left in the community laundry (or someone else might use the machine).

She soaks the clothes in tub A, wrings them into washing machine B, wrings them back into A for the first rinsing and into C for the second rinsing and then into the basket at D. This process is typical and is repeated 6 or 7 times.

The scheduled time in the drying room is so short that the heavier clothes do not have time to dry. Mrs. Jones, like most women, prefers outdoor drying because the clothes get whiter, softer, easier to iron and smell better.

All of the 30 families visited owned washing machines. The above laundry process takes several hours of hard work which can be almost eliminated by automatic laundry machines. It is possible that in the near future these machines will be permanent fixtures like stoves and refrigerators.

Where the laundry is done in the kitchen the process is about the same except as shown in the following questions which reveal more planning problems.



11 INDIVIDUAL VS. COMMUNITY LAUNDRY. *Would you prefer an individual or a community laundry? Why?*

Twenty-eight out of 30 women preferred an individual laundry. Even where community laundries were available some did their laundry in the kitchen.

Some of the reasons against the community laundry were:

"I can't leave the baby alone at home. I have to run back and forth to watch it or get someone to care for it."

"The clothes are too heavy to carry."

"I can't always wash on my scheduled time because of sickness or other difficulties."

"I have to clean up after someone else."

"I must carry the removable parts of my machine to the house."

"The scheduled time for drying is not long enough."

"I would like more privacy."

"The women gossip too much."

Where the tenants maintained the laundry rooms, many found it difficult to participate in the cleaning on scheduled day because of sickness, pregnancy or other work.

Some of the difficulties with doing the laundry in the kitchen were:

a. The vapor and odors spread through the house.

b. The kitchen was untidy most of the day.

c. The children's lunch was hard to prepare and serve because of the laundry set-up.

d. The husband did not enjoy the laundry filled kitchen when he came home from work.

e. The dining furniture had to be moved out of the way and the utility closet emptied of other things to get the washing machine out.

(*Question* 11 *continued on next page*)

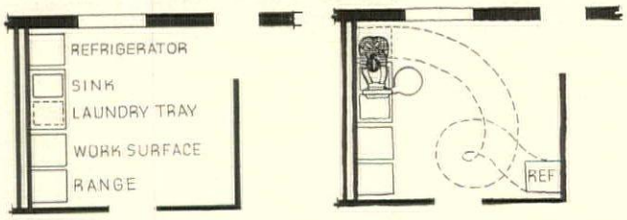


"I must carry the removable parts of my machine to my house."

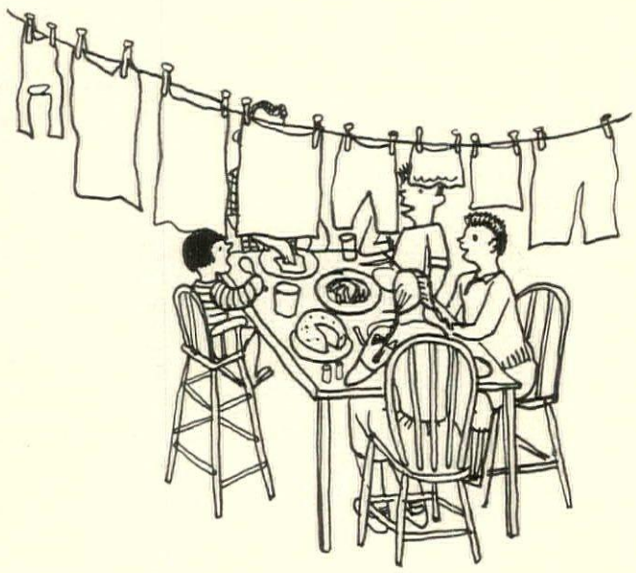


"The women gossip too much."

LAUNDRY



f. While the double sink (one shallow and one deep) is useful for small hand washings, it is not adequate for large rinsings because the shallow compartment is not large enough. Unless standing room is left at both ends of the sink ("X" in diagram, preceding page) it is difficult to guide the clothes through the wringer after the first rinsing. *In some cases the refrigerator had been moved elsewhere to make this standing room.* In others, an extra wash tub was placed on a chair. A few had bought tubs on rollers.



g. During inclement weather the clothes are hung to dry on lines in the kitchen. This is not very sightly and interferes with other activities. Often the lines extend across the dining table.

h. Many families find it necessary to wash 2 or 3 times a week because of scanty wardrobes. The difficulties are increased proportionately.

12 IRONING. *Where do you do your ironing?*

Twenty-four women ironed in the kitchen because of habit, convenience of electric outlet and best light. They could also cook and watch the baby while ironing.

Five ironed in the bedroom because of convenience for hanging pressed clothes. One ironed in the living room because she wanted to listen to the radio.



13 SEWING. *Where do you do your sewing?*

Fifty per cent preferred the bedroom. Others sewed where it happened to be most convenient. Seventy per cent had sewing machines.

"I would prefer to sew in the bedroom, but I do it in the kitchen because of more ample space."

"The mess is easier to clean up in the kitchen."

"I like to sew in the bedroom where it's quiet."

"I sew in the living room. The new machine is a nice piece of furniture."

ROOM ARRANGEMENT

14 GROUND FLOOR STORAGE. *What do you store in your utility closet?*

These are the things I found in utility closets: Washing machine, ironing board, laundry tub, boiler, laundry basket, iron, clothes line and pins, ladder, vacuum cleaner, broom, mop, pail, soaps, baby's play pen, potty chair, folding diaper rack, chalk board, sled, roller skates, wagon, toys, tricycle, bicycle, perambulator, auto tire, mechanic's tools, canned goods, pots and pans, sack of flour, sack of potatoes, winter clothes, blankets, work clothes, childrens' coats, wet clothes, soiled clothes, rubbers, overshoes.

You can imagine what a utility closet looked like with most of the above items jammed in. Also imagine the difficulty of getting at them. Some of the problems are discussed in the next question.



". . . so the bicycle was kept in the kitchen."

15 STORAGE PROBLEMS. *What are some of your storage problems?*

In general, the typical utility closet does not have enough space for all needs. Some of the difficulties which I found were:

a. Most of the children wanted to keep their bicycles in the house, even where there was community storage space, because of the danger of theft and for convenience. The utility closet was usually too small or too full, so the bicycle was kept in the kitchen or, as in 3 cases, in the living room. Walls, doors and jambs suffered. Perambulators and tricycles were also kept in the living room or kitchen for the same reason.

b. As mentioned before, in order to use the laundry machine it was necessary to move other things out of the way, such as bicycles, tricycles, wagons, toys and other things which were used daily. Many housewives just left the laundry machine and tubs in the kitchen.

c. Where the husband came home wearing his dirty work clothes, he would invariably change in the utility closet, leaving his work clothes there because they were unfit to be hung in any other closet because of dirt and odor. The

children were required to leave their muddy shoes and wet clothes in the utility closet.

d. Many mothers keep their children's toys in the utility closet because the children play mostly in the kitchen.

e. In most projects the management discouraged the tenants from bringing much "dead" storage other than luggage. Families which have one or two children and are expecting more in the future need storage space for such things as play pens, folding bath tubs, cribs, perambulators, diaper racks and other things which are used for only a few months by the infant and then must be stored for the next baby. It is too expensive for low-income families to discard these things and buy new ones for each child. The management might try a renting service on these particular items.

f. The closet under the stairs is usually full of daily clothes and stored clothes and is not very useful for "live" storage.

16 BASEMENT VS. UTILITY ROOM. *Would you prefer a basement or a utility room?*

Ninety per cent of the women preferred the utility room if it were large enough for washing and drying, because it would eliminate stair climbing and the child could be easily watched. Many expressed a dislike for dark, damp basements.

Some wanted the basement because they had previously been used to it and the husband wanted a place to putter around.

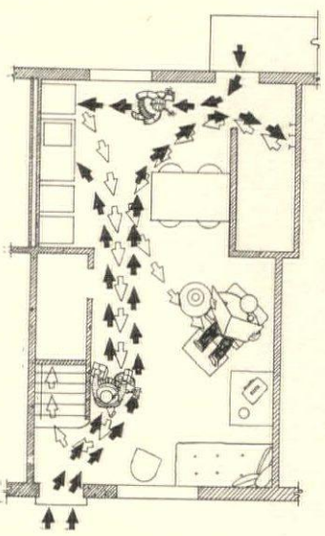
Where the units had basements the tenants were satisfied. However, it seemed that much of the space was not used, at least not efficiently.

17 ENTRANCE DOORS. *Does your family use the front door or the back door most? Why?*

The family used the door which offered the most direct route to school, to the store, to the car line, to the parking lot or to the play yard. All of them used the back door more than the front one because of the laundry, garbage disposal, children's toys, bicycles, etc., and because the children were told to do so in order to reduce tracking in the living room.

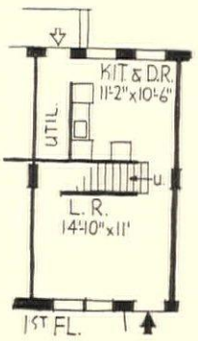
Since the rear door is used so much more than the front one, its importance should be considered more in site planning and building orientation. Also, being practically the main entrance, its design should eliminate the "back door" aspect and make it more inviting as well as more convenient.

18 CIRCULATION. *After entering through the front door where does each person usually go first? Why?*



The prompt answer was always "To the kitchen." The children went to the kitchen usually because their mother was there, or for something to eat, or to play. They invariably at least looked into the kitchen before going upstairs. The housewife did likewise and so did the husband.

The housewives complained of excessive tracking across the living room from the kitchen door to the foot of the stairs. In wet weather this was doubly bad. Some worn rugs were convincing evidence of this.



This testimony shows that the best place for the stair is not facing the front door. It just isn't used from there. The stairs should be accessible from the kitchen and living room and this can be easily done, and has been done, by placing the stairs parallel to the front and back walls between the kitchen and living room.

Such an arrangement has many advantages. It facilitates caring for the sick upstairs; it provides a more direct route for handling the laundry, for cleaning the second floor and to the toilet. It permits more direct access from the back door, which is used the most, and makes the living room more private.

19 WINDOW AREA. *Would you want more or less windows for light?*

In almost every case they were happy about the abundance of light and sunshine. No one wanted less light; a few more.

20 SUNSHINE. *In which room would you prefer the most sunshine?*

All but four wanted the most sunshine in the kitchen because:

"It's cheerful."

"I like a lot of light for my work."

"It makes the long hours in the kitchen more pleasant."

"I don't want it to fade the living room furnishings."

Although the husband might prefer it in the living room, he was seldom at home during the day to enjoy it.

Two women preferred the sunshine in the living room, and two in the bedrooms because they believed it killed germs.

21 PORCH. *Would you want a porch? In front or back?*

Twenty-four out of 30 wanted a porch, 21 of them in front. Reasons:

"I like to sit outside on warm afternoons and evenings."

"I prefer the porch in front because I like to get away from the work side of the house."

"It's very relaxing to get outside."

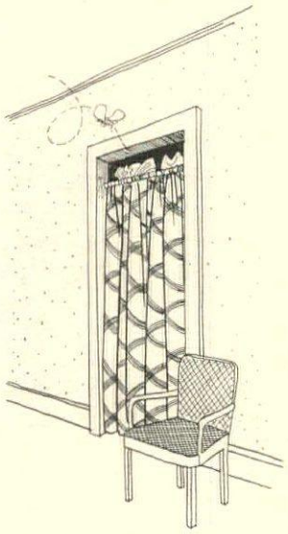
"I like it in front because it's quieter and the outlook is nice."

"I'd like a porch so that I could leave the baby there."



The stoops in most projects are not large enough for two chairs, and many are so small that the swing of the door allows no sitting space at all. The paved sitting-out areas at the sidewalk level are used but are not entirely satisfactory because there is no feeling of privacy and, as one woman put it, "It still looks like the slums where we all sat out on the sidewalk."

Most of them wanted a porch large enough to accommodate a play pen, or at least two chairs, with a feeling of partial privacy—but still open enough so that they could see what was going on. Most women wanted a roof, at least over the doorway, but some would have been satisfied with an open terrace.



"The curtain rod in many cases was too far down."

SECOND FLOOR

22 CLOSETS. *Do you have enough closet space upstairs?*

In almost every case the closet space upstairs was sufficient. Most of the people did not have large wardrobes. Housewives complained of dust settling on clothes where closets had no doors, even when they had curtains. The curtain rod in many cases was too far down, leaving an open space of several inches above.

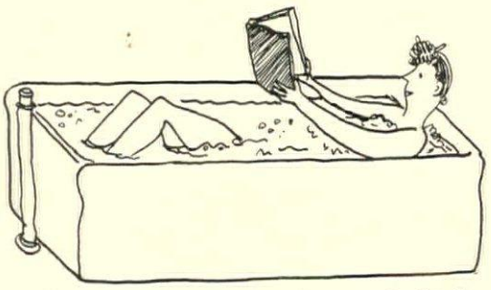
23 BEDS. *Do you prefer twin beds or a double bed?*

About two-thirds of the cases preferred double beds. Bedrooms with twin beds were a little too crowded. In all cases the age and sex arrangements for sleeping were satisfactory and conformed to the requirements of the management.

26 TUB VS. SHOWER. *Do you prefer a shower or a tub?*

All of the women preferred a tub for themselves and for the children. Men usually wanted showers. The women said that it was easier to bathe the children in the tub and that for themselves a tub bath was relaxing.

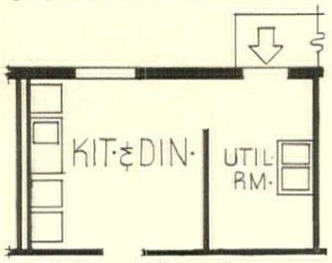
A shower over the tub seems easily worth the 75 cents a year it would take to amortize its cost.



"For themselves a tub bath was relaxing."

CONCLUSIONS

The laundry and storage problems, which were the chief causes of complaints within the dwelling units, could be solved simultaneously by providing each unit with an efficient utility room for both needs. This room should be adjacent to the kitchen-dining room and should be planned for laundering, complete with tubs, drain, space for drying and ironing and large enough for the easy storage of things in daily use. Direct access to the outside would facilitate the moving of bikes, baby carriages, etc. This room might also contain the heating unit. A half-way attempt has been made in a few projects, but the problem has not really been solved.



A utility room of this type would, of course, increase the cost per dwelling unit, but the functions of laundering and storage are vital and should have the necessary space.

Most projects require tenants to deliver their garbage to a can located in the service drive or to an incinerator. In a few projects the garbage cans are picked up from the back door of the dwelling unit. The systems vary, according to the service available from the city. If the city collection is irregular and infrequent, the incinerators are used. If the city service is good, the garbage cans are used. Scavenger service is considered expensive.

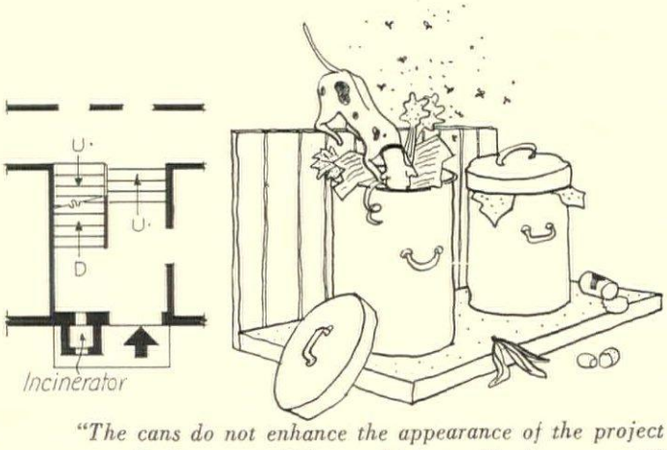
Managers as well as tenants prefer the incinerators to the garbage cans. Ordinarily it takes about 3 times as much labor on the part of management to take care of garbage cans as it does to operate incinerators for the same number of families. Incinerators thus pay for themselves in the long run. If for any reason city service fails, garbage disposal in the project is not affected.

The tenants do not mind carrying their garbage to the incinerator any more than they do carrying it to the garbage can station if the distances are equal. The site planner should locate the incinerators on the route to the school, store, or car line so that garbage can be disposed of *en route* without having to make a special trip. If the incinerator is placed on the outside wall of an apartment house stair-well, the apartment dwellers can deposit their garbage from the inside and the row-house tenants can deposit theirs through a door on the outside, thus making double use of each incinerator. Some projects have made a stock feature of this type of incinerator arrangement.

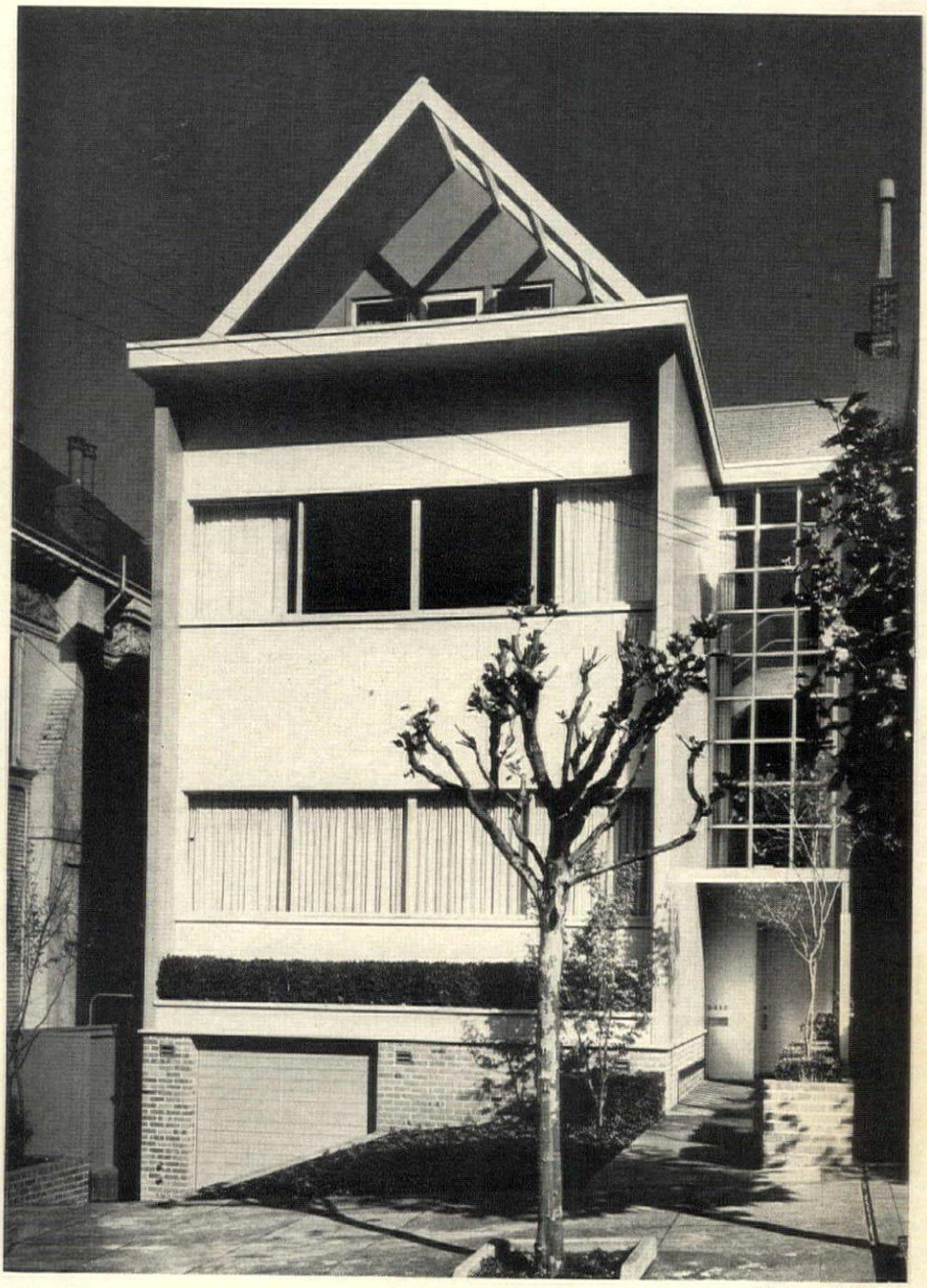
Garbage cans must be kept very clean to prevent worms and odors. Tenants do not enjoy cleaning them and it is expensive for management to do it. The cans at the back doors or at the garbage can station do not enhance the appearance of the project even if they are well kept, which usually they are not.

The exterior appearance of the projects is sadly lacking in rhythm and variety. Certainly there is variety in the needs of the families with their varying compositions, sizes, personalities, tastes, incomes and other factors. This should be expressed architecturally and should provide rhythmic variation. A little more inspiration and imagination are needed by designers and executives to provide attractive low-rent housing instead of acres of depressing, monotonous structures.

Gadgets or frills will not make housing beautiful. A basic study of needs is required. The form beautiful will grow out of the functions of the family. We must study these physical, intellectual, emotional, spiritual and moral functions of the family much more thoroughly than we have ever done before to create a true architectural expression for American housing.



"The cans do not enhance the appearance of the project even if they are well kept, which usually they are not"





Photos, Philip Fein

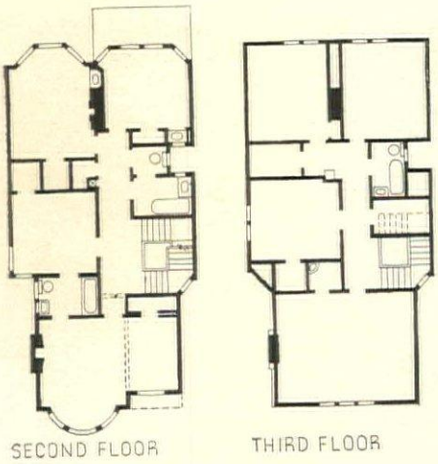
SAN FRANCISCO, CALIFORNIA

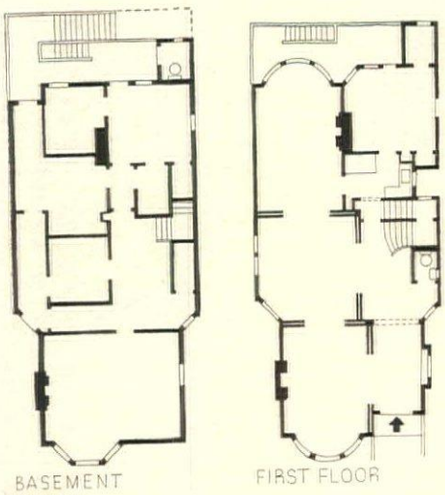
FRANCIS E. LLOYD, ARCHITECT

FRANCES MIHAILOFF, INTERIOR DECORATOR



REMODELED HOUSE

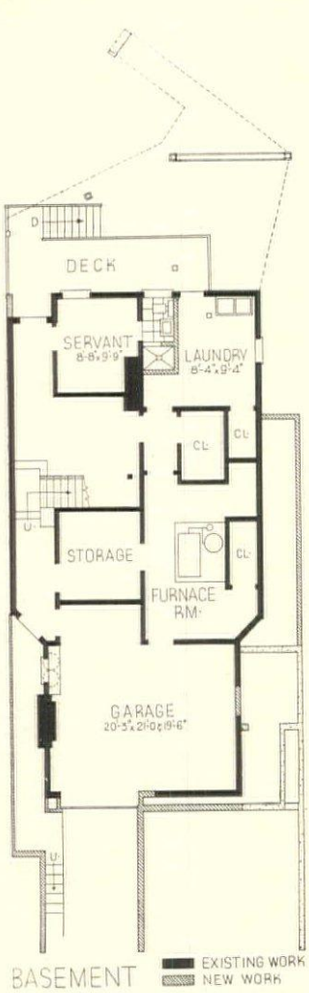


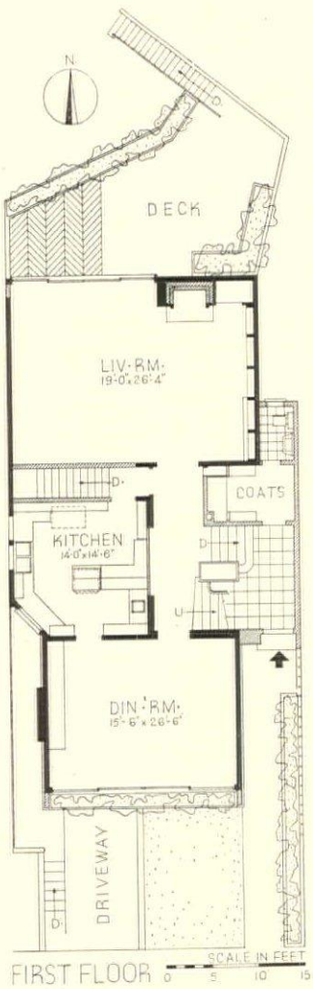


BEFORE



A striking demonstration of the ability of the modern approach to produce a remodeling result as different from the conventional haunted-house-to-pseudo-colonial-mansion sequence as the modern house is different from its traditional counterpart, this remodeled town house also highlights possibilities inherent in thousands of outmoded dwellings that are particularly significant at the present time. While in this instance the designer's talent has been used to produce accommodations for a single, well-to-do client, there is obviously no reason why the same skill might not be applied to similar beginnings to provide badly needed accommodations for war workers—a job which is receiving every official encouragement. The need for the kind of imagination and skill which this design illustrates is, if anything, greater in the $50-a-month field than in upper-bracket housing.









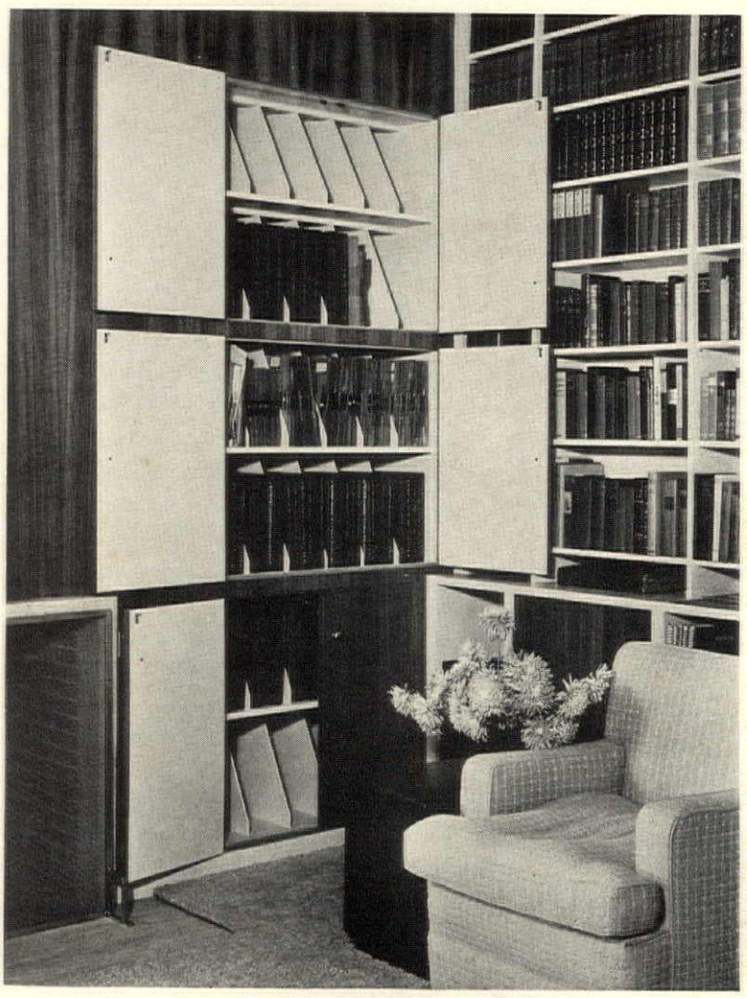
AFTER

SAN FRANCISCO, CALIF.

FRANCIS E. LLOYD, ARCHITECT



LIVING ROOM

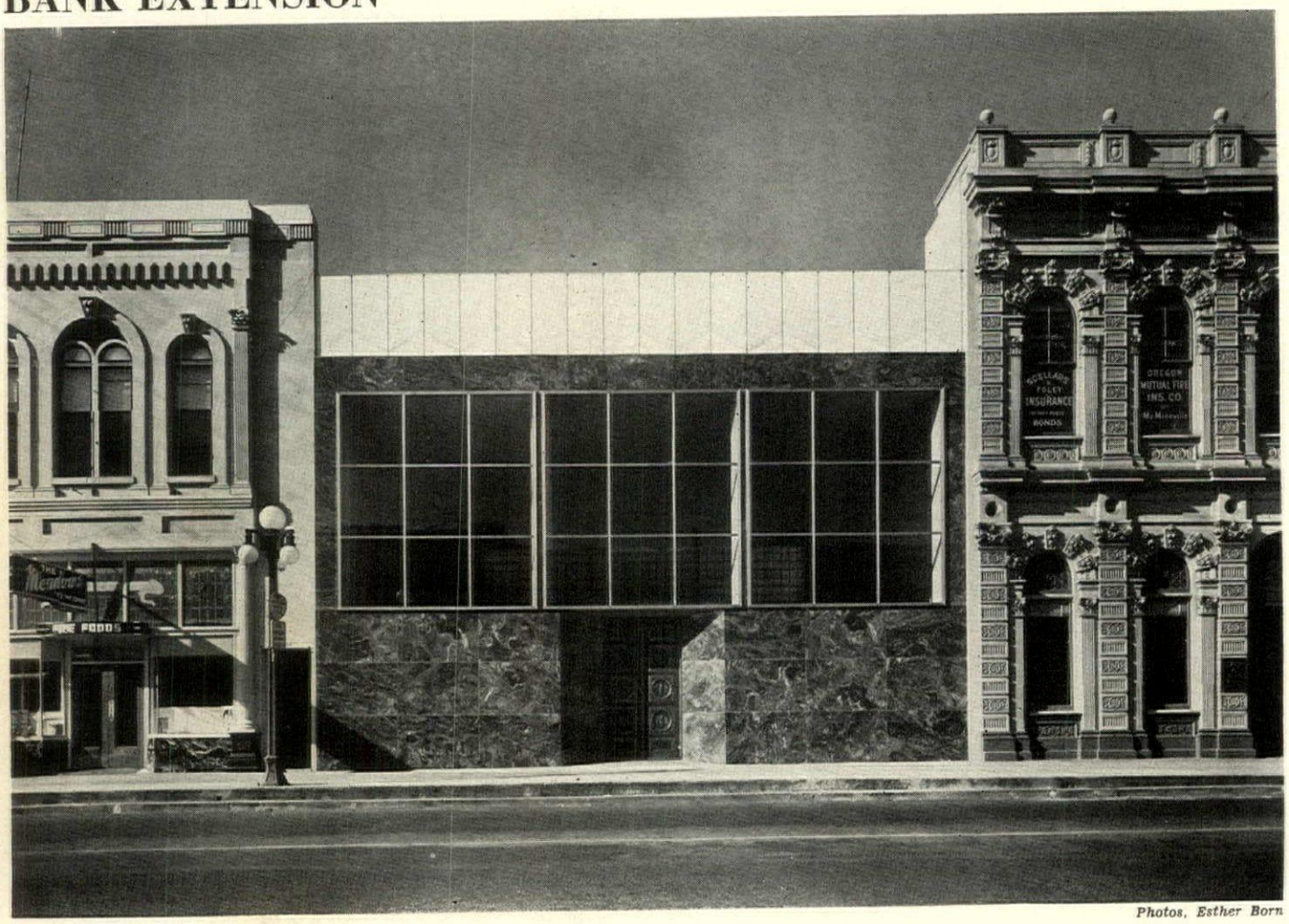


RECORD CABINET

CONSTRUCTION OUTLINE

STRUCTURE: Exterior walls—redwood or Douglas fir plywood, 15 lb. asphalt saturated felt.
ROOF: Asphalt shingles, Paraffine Co.'s.
FIREPLACE: Damper—Superior Fireplace Co.
WINDOWS: Sash—wood casement and sliding steel, Michel & Pfeffer Co. Glass—Pennvernon, Pittsburgh Plate Glass Co.
FLOOR COVERINGS: Linoleum, Armstrong Cork Co. and rubber tile, Paul Coste Co.
WALL COVERINGS: Canvas and Flexwood, U. S. Plywood Co., Inc.
PAINTS: W. P. Fuller Co.
GARAGE DOORS: Frantz Mfg. Co.
HARDWARE: P. & F. Corbin.
ELECTRICAL INSTALLATION: Switches—Hart & Hegeman. Fixtures—Karl Von Hacht.
KITCHEN EQUIPMENT: Sink—Crane Co. Fan—Ilg Electric Ventilating Co.
BATHROOM EQUIPMENT: Crane Co. Cabinets—Hallenscheid & McDonald.
PLUMBING: Water pipes—copper, Revere Copper & Brass Co.
HEATING: Warm air system, New Mission Heating Co. Grilles—U. S. Register Co.

BANK EXTENSION

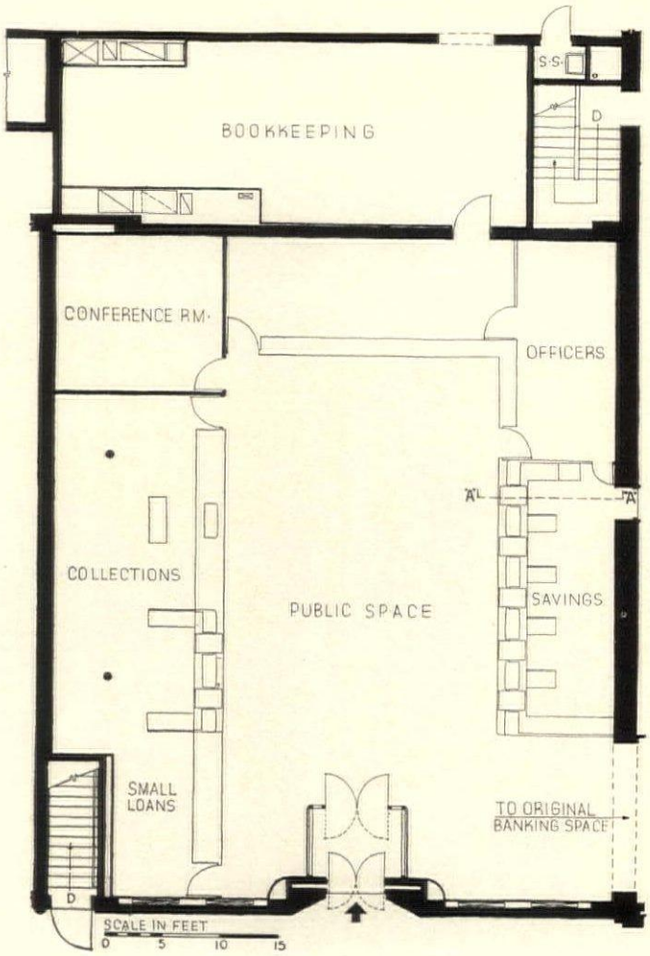


Photos, Esther Born



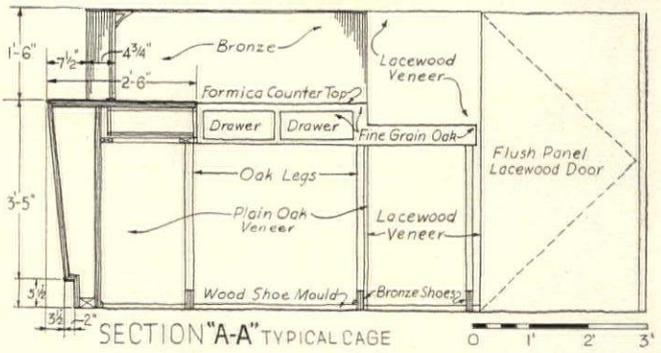
SALEM, OREGON

The problem given the architects for this building was a very common one: on a typical Main Street in an average U. S. town, a business needed space for expansion. The original structure (right, above) boasted a very ornate front of cast iron, the moulds for which were brought around Cape Horn from England in the early sixties. Since no one dreamed of repeating the old front for the new addition, how were they to be related to each other? The architects' answer is interesting. They believed that the old building, for historical and sentimental reasons, should not be altered, and they believed also that the dignity of the Victorian building could be translated into modern idiom for the portion that had to be added. The officials of the bank appreciated the advertising value of this dramatic contrast; also, since a duplication of the old was impossible, a marked difference was preferred to a lukewarm imitation. The illustrations confirm the wisdom of the decision. The difference between the old and the new is certainly no more startling than the difference between the two periods represented, and each building gains immeasurably by the honesty and frankness of the contrast.





The addition conforms to the requirements of modern banking practice with its simple furniture, effective use of materials, and excellent provision for natural and artificial illumination.



CONSTRUCTION OUTLINE

STRUCTURE: Exterior walls—reenforced concrete, 1¼ in. Rainbow granite, Cold Spring Granite Co.; inside—brick, furring, metal lath and Flexwood, U. S. Plywood Co., Inc. Columns—extruded bronze, Oregon Brass Works. Floors—reenforced concrete and ceramic tile, Standard Tile Co.
ROOF: Wood with composition roofing.
SHEET METAL WORK: Flashing and ducts—galvanized iron.
SOUND INSULATION: Acousti-Celotex and Absorbex, Celotex Corp.
WINDOWS: Sash—bronze, Oregon Brass Works. Glass—Coolite, Mississippi Glass Co.
WALL COVERINGS: Flexwood, U. S. Plywood Co., Inc.
WOODWORK: Trim and doors—oak.
ELECTRICAL FIXTURES: Packard-Malloy, Inc.
HEATING AND AIR CONDITIONING: Warm air system; complete winter and partial summer air conditioning. Boiler—American Radiator-Standard Sanitary Corp. Oil burner — Pan-American Engineering Co. Thermostats—Johnson Service Co. Coils—McQuay, Inc.



1·2·3 RESTAURANT AND NIGHT SPOT



Photos, Hans Van Nes

VIEW 1

VIEW 2

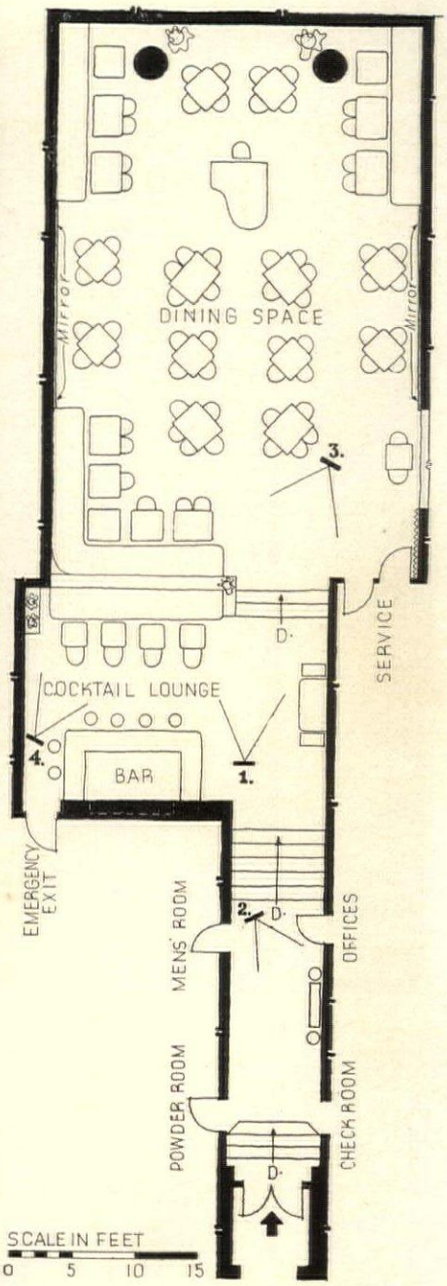


Newest of New York's fashionable eating and drinking places, the 1.2.3 restaurant takes its name from the street number and its character from the designer's desire to provide a background that would show any costume to advantage. The entire effect of the room is brownish gray, only slightly accented by the red and gray carpet. All the furniture is done in the same restful colors, and tables and chairs have been reduced somewhat from standard height to produce an appearance of increased spaciousness. Several changes in level have been introduced for the same reason. Lighting is a mixture of incandescent and fluorescent, the latter being used in long troughs as shown in the illustration above. The only piece of applied decoration in the place is an antique clock (right) set in one of the walls of the mirrored corridor.

KARL NOBLE, DESIGNER



VIEW 3



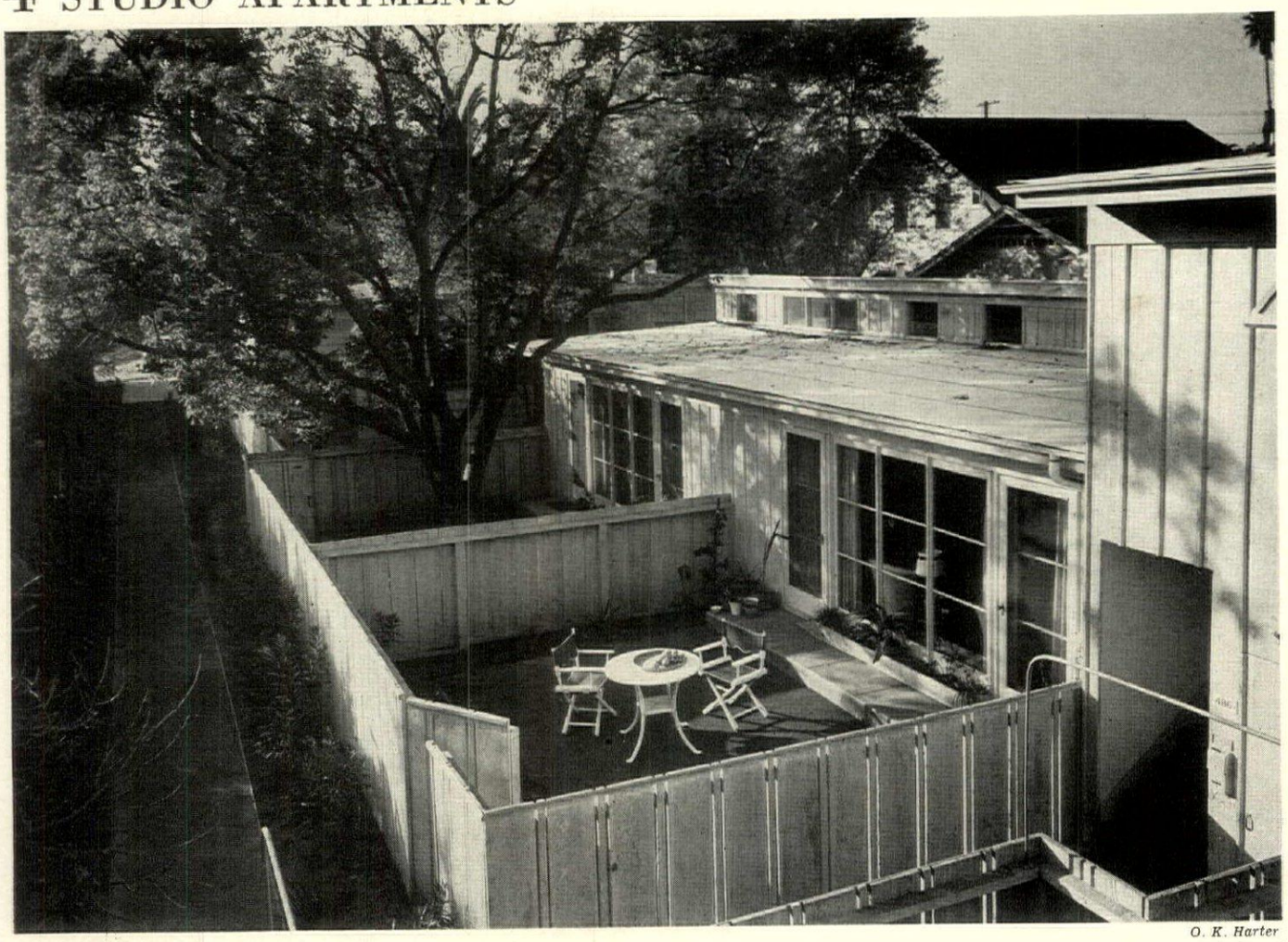
VIEW 4



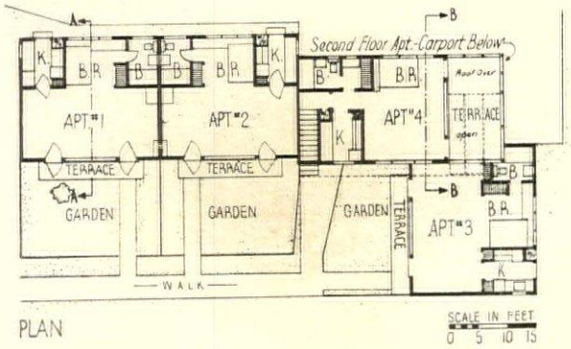
FINISHES AND EQUIPMENT

WALLS—metal lath and plaster. WALL COVERINGS—wallpaper, F. Schumacher & Co. FLOOR COVERINGS—carpet, Alexander Smith & Sons Carpet Co. FURNITURE—Angelo Romano, Ltd. and Astra Bent Wood Furniture Co., Inc. GLASS AND MIRRORS—Libbey-Owens-Ford Glass Co. and Mississippi Glass Co. ELECTRICAL FIXTURES — Clinton Metal Mfg. Co. AIR CONDITIONING—Airaconda Air Conditioning Co., Inc.

4 STUDIO APARTMENTS



O. K. Harter

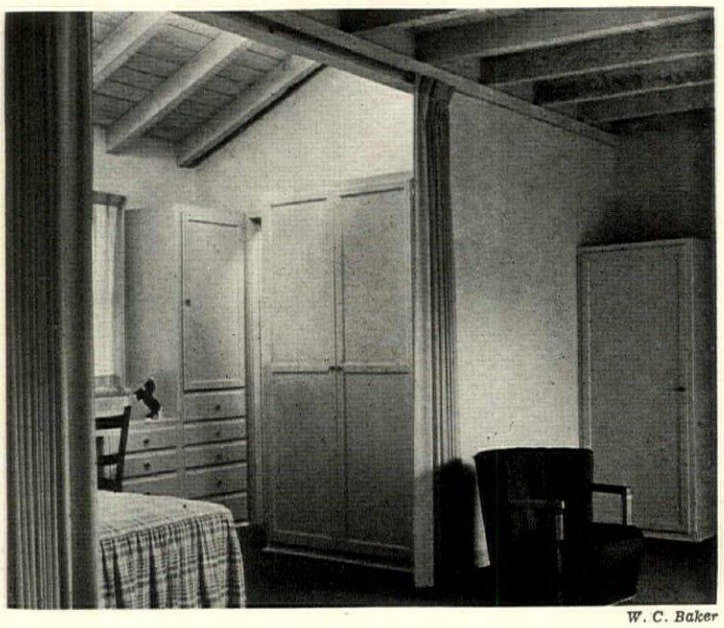


PLAN

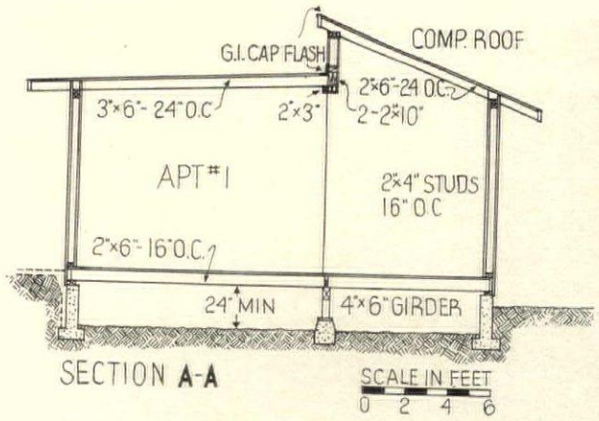
A most unusual rental project, consisting of four one-room apartments, each with its own outdoor living area. While the building was put up in the simplest and most economical manner, it offers amenities almost unique for this type of housing. The garden greatly increases the spaciousness and livability of each unit, while the clerestory windows give light and excellent ventilation to the sleeping alcoves. Photographs of the various living units show how well the rooms lend themselves to furnishing. Space for tenants' cars is provided under the second-floor apartment. Cost: about $3.50 per square foot.

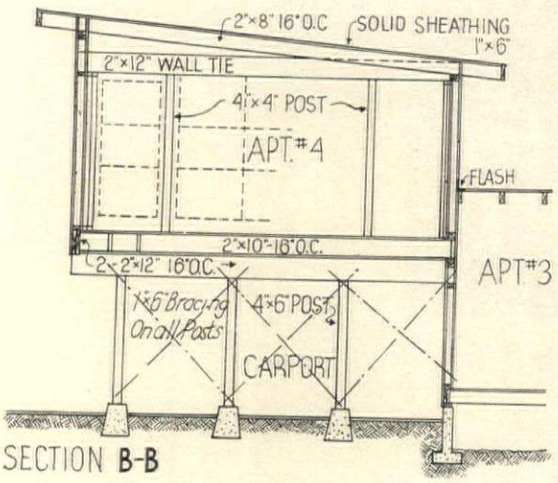


O. K. Harter



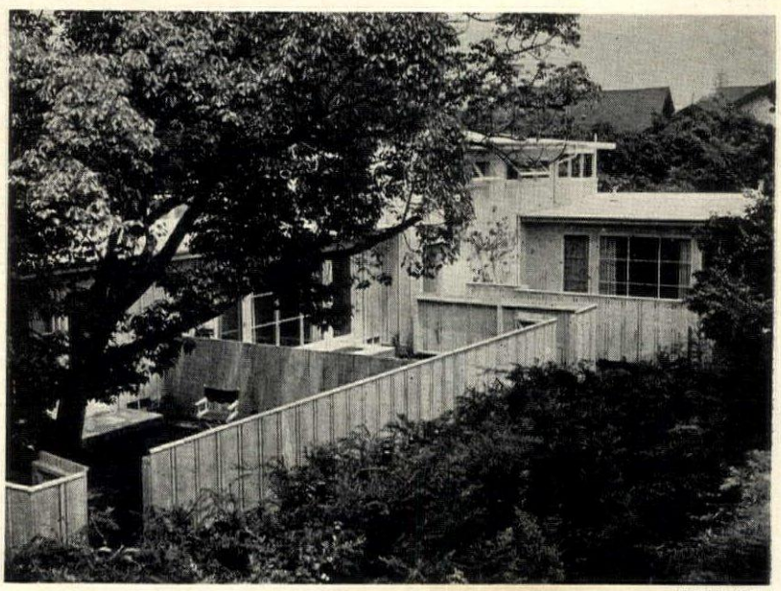
W. C. Baker







O. K. Harter

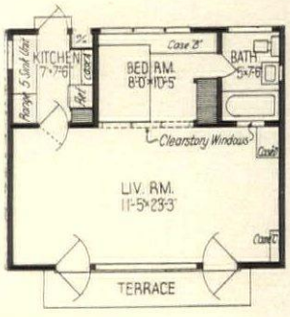


W. C. Baker

STUDIO FURNITURE DESIGNED BY ANTONIN AND CHARLOTTE HEYTHUM

CONSTRUCTION OUTLINE

EXTERIOR WALLS: Douglas fir.
ROOFS: 90 lb. Pioneer cap sheet.
WINDOWS: Sash—wood, double hung and awning.
HARDWARE: Schlage Lock Co.
BATHROOM EQUIPMENT: American Radiator-Standard Sanitary Corp.
HEATING: Warm air system.



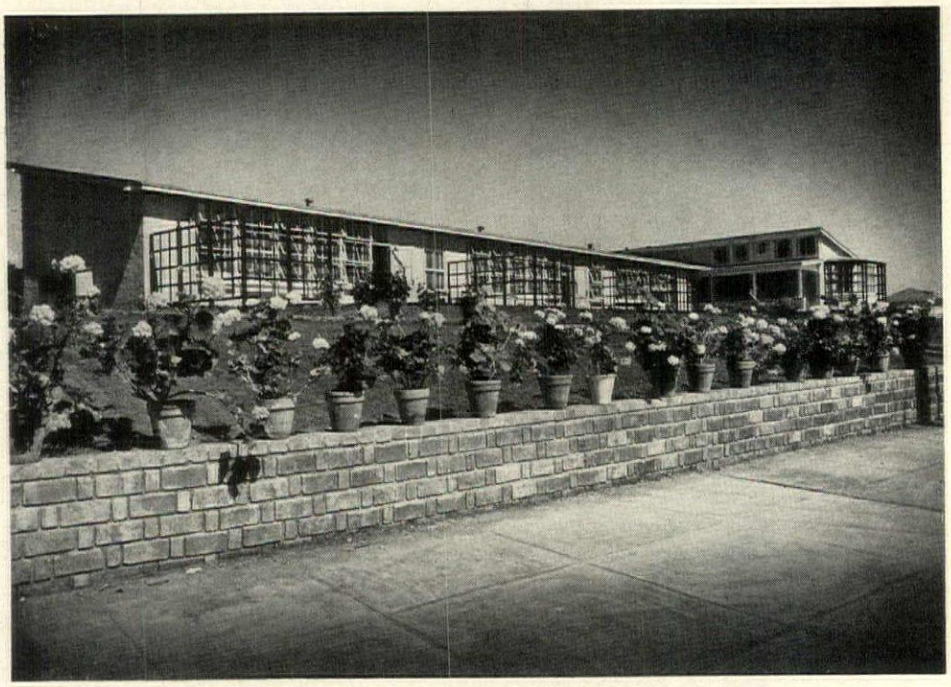
TYPICAL APARTMENT



O. K. Harter

THOMAS O. LARKIN SCHOOL

MONTEREY, CALIF.



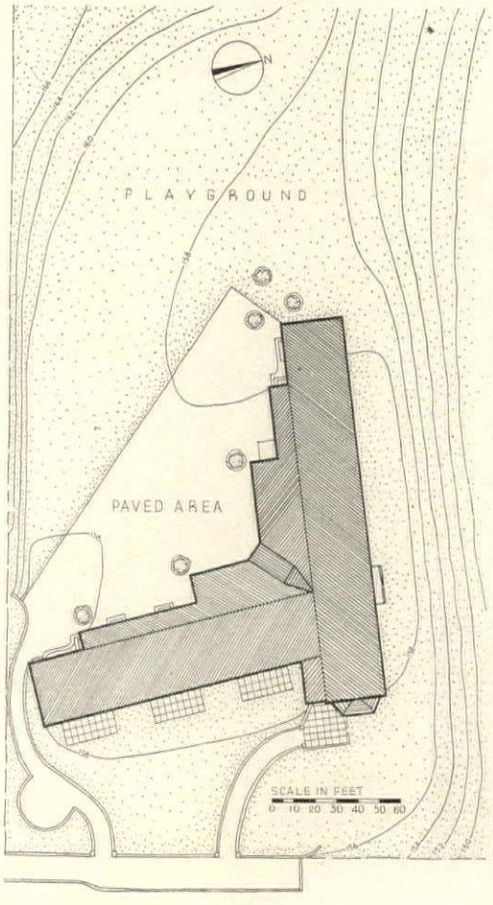
ROBERT STANTON & THOMAS B. MULVIN, ARCHITECTS
Mac D. PERKINS, STRUCTURAL ENGINEER
G. M. SIMONSON, MECHANICAL ENGINEER
R. W. BROWN CONST. CO., CONTRACTOR

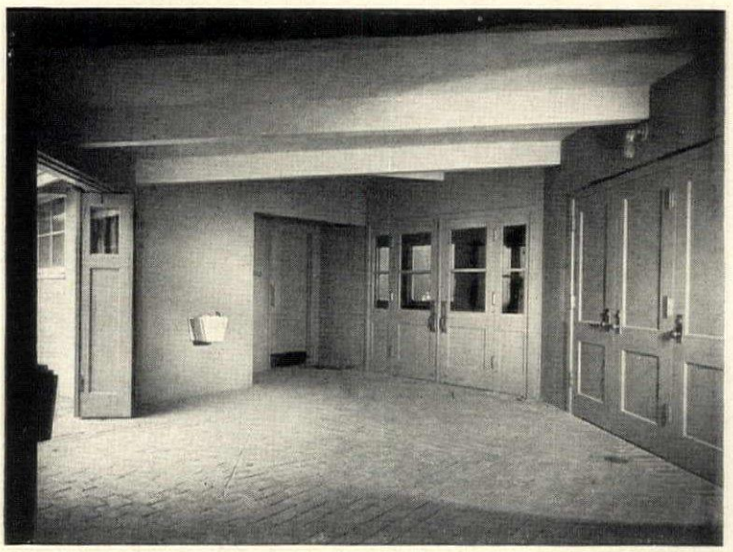
The beneficent effect of Pacific breezes on the practice of architecture is nowhere so evident as in school design. Architects in other parts of the U. S. have in recent years been responsible for excellent school buildings in isolated instances, but these have been neither as numerous nor as good as the California crop. Good design flourishes on sympathetic acceptance, and the architect who must spend most of his time persuading the school authorities to leave off the pediment and cupola necessarily has less to spend on more important things. Good design also begets better design and the demand for it. Apparently, to judge by this and many other examples, California school boards are now satisfied with nothing short of outstanding excellence.

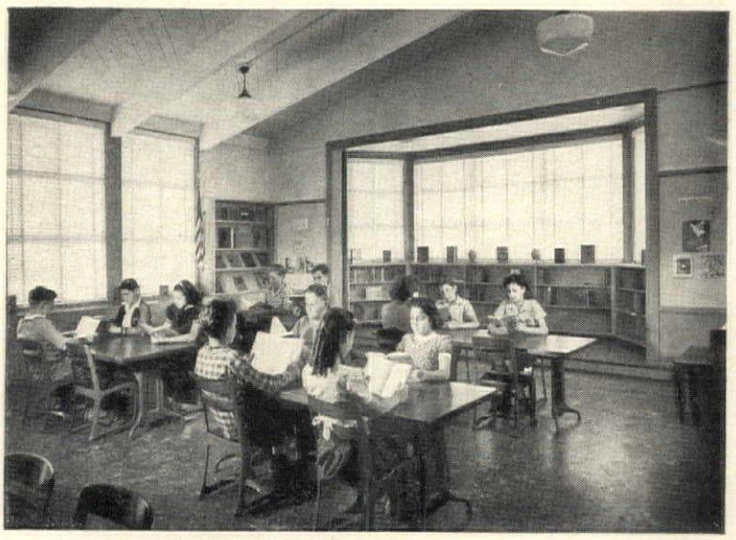
Photos, Maynard L. Parker



The Thomas O. Larkin school is designed as an elementary school in which each classroom acts as an activity room for each grade. All the classrooms have therefore the same basic function, and are virtually identical in plan except for a functional distinction between the lower three and upper three grades. All the rooms have bilateral lighting, lockers, cases and other activity equipment; the primary classrooms have terraces for open-air study and play.

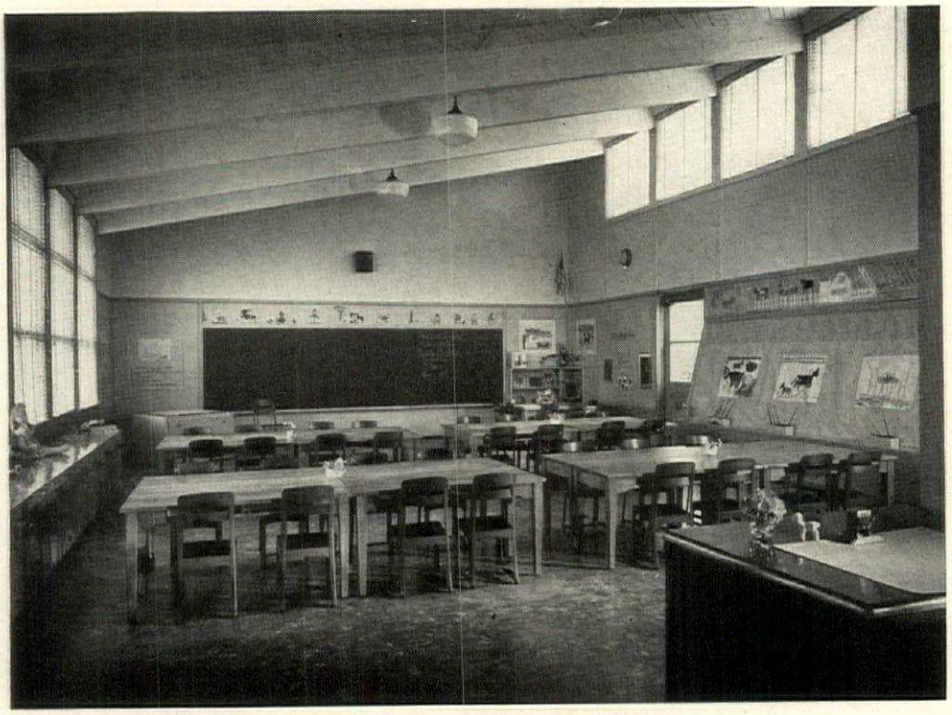


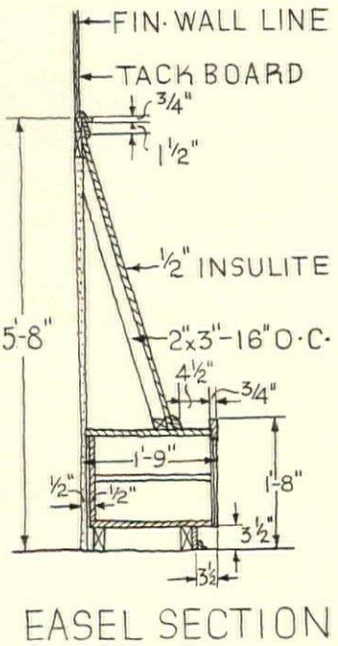




THOMAS O. LARKIN SCHOOL

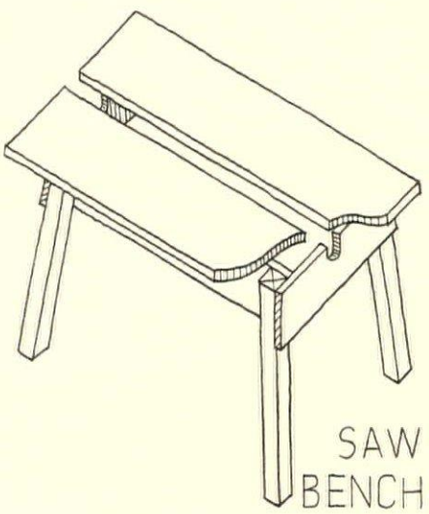
MONTEREY, CALIF.





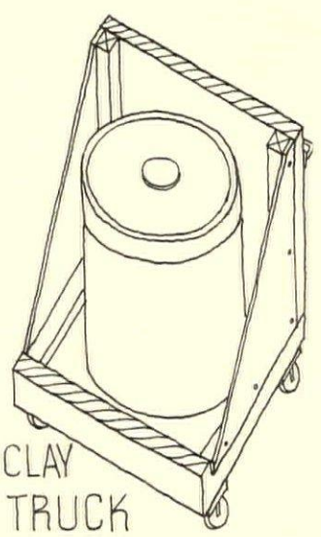
EASEL SECTION

Photographs at the top and bottom of this page show both ends of a typical primary classroom. drawings at the right show the sidewall easel and two pieces of portable equipment designed by the architects. Large windows in the primary classrooms face east, clerestory windows above the corridor west for morning and afternoon sunshine the year 'round. Note economy of timber roof construction exposed on the inside; entire building is wood frame. but meets requirements for earthquake resistance. Such structural simplicity, possible only in a one-story school building, is one way of assuring an ample budget for built-in equipment.



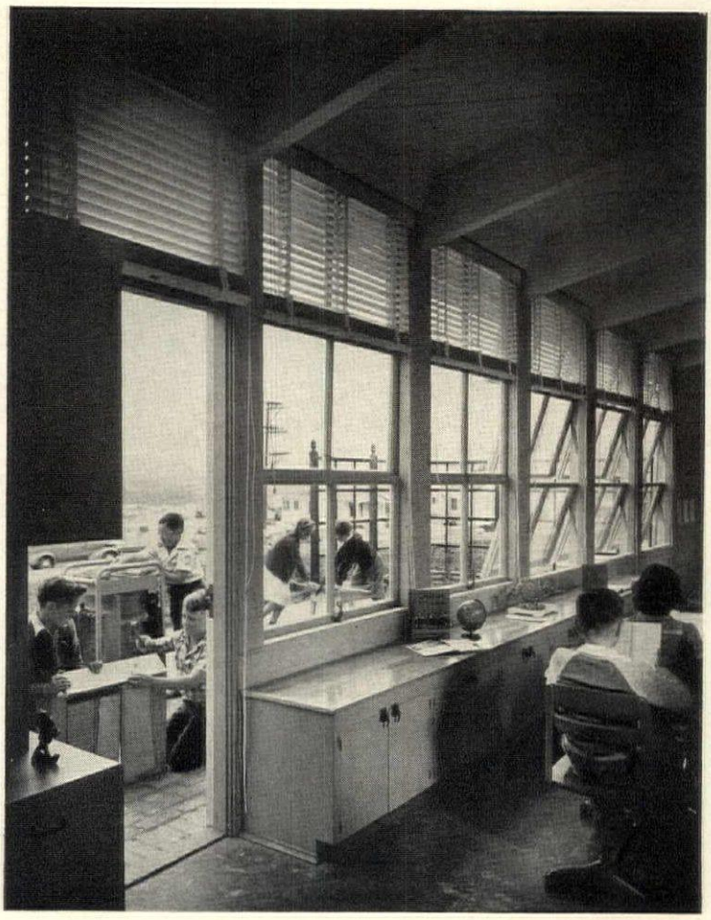
SAW BENCH

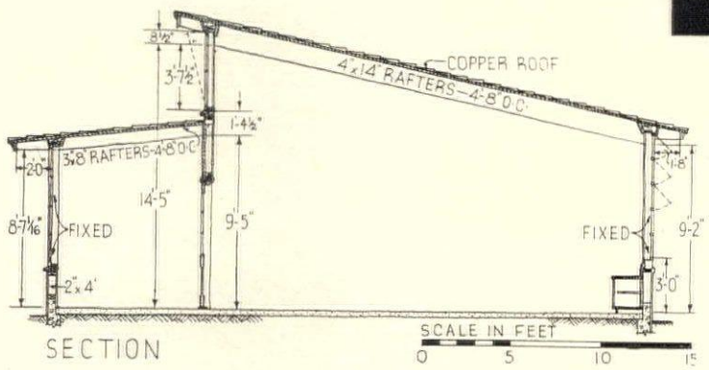




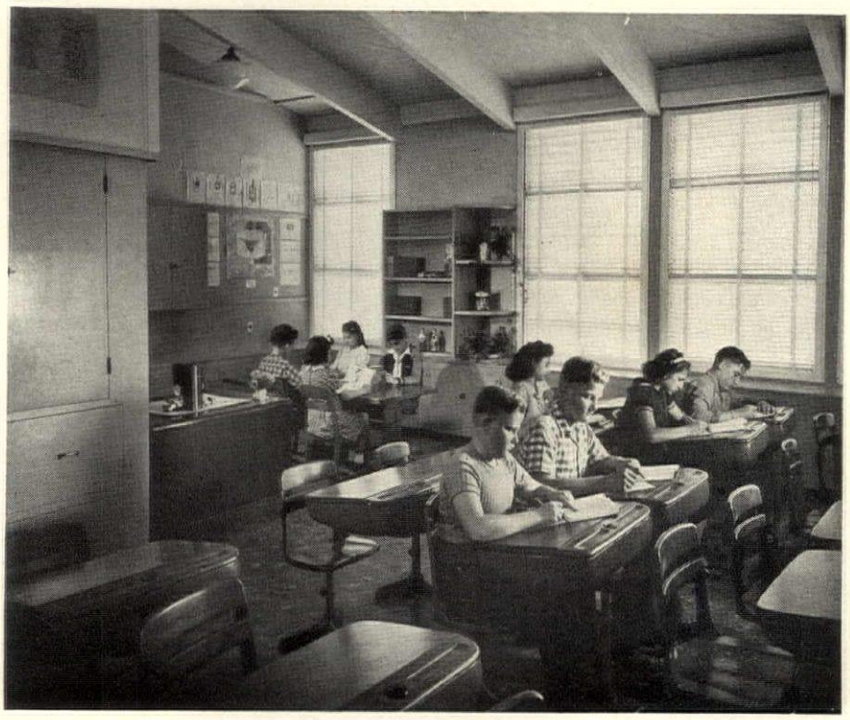
CLAY TRUCK







SECTION



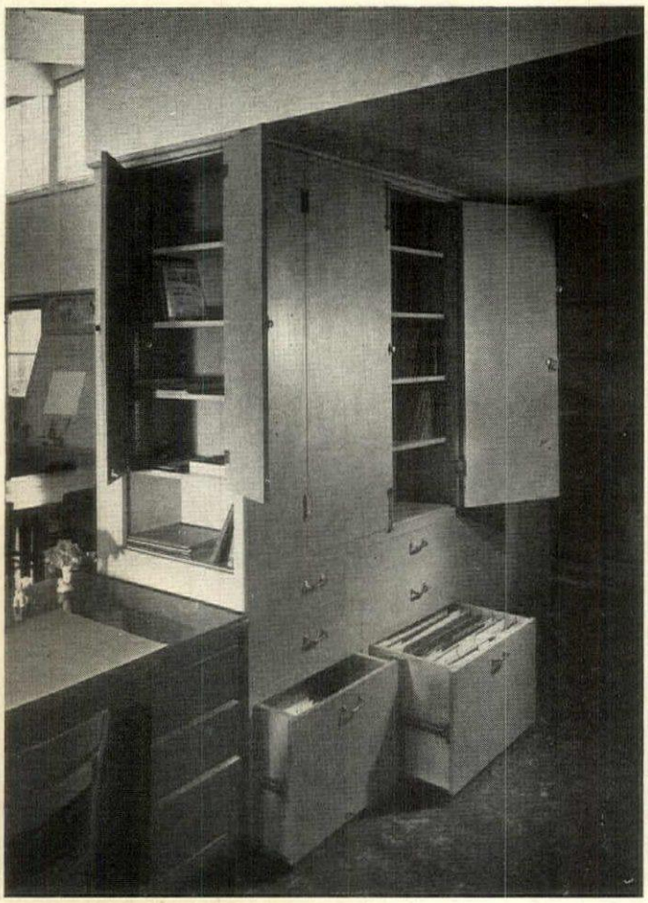
The boys' toilet room (upper left) uses a gang-type wash bowl and open-stall toilets. View above shows use of the terrace outside one of the primary classrooms, the view below children at work in one of the "upper" classes—4th, 5th and 6th grades. Typical transverse section indicates how each classroom receives "bilateral" light through large windows on the outside wall and high windows on the opposite wall over the corridors, toilet rooms etc., which have low, almost-level ceilings. The success of this lighting arrangement may be judged from the fact that tests on overcast days, with the blinds adjusted for maximum comfort, showed a minimum of 50 foot candles for the most poorly lighted part of the room.

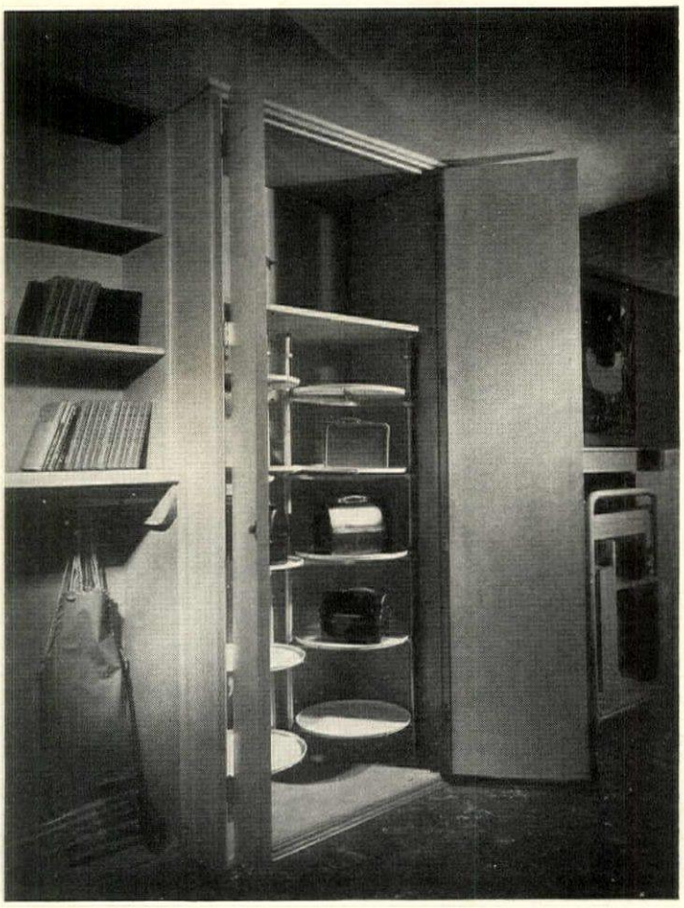
CONSTRUCTION OUTLINE

STRUCTURE: Exterior walls — plaster on stucco netting, Brownskin paper, Angier Corp., sheathing; inside—plywood, wallboard and plaster and tile. Floors—reenforced concrete.
ROOF: Double-Lock copper, Copper Roof Corp.
SHEET METAL WORK: Flashing and gutters—copper. Ducts—galvanized iron.
INSULATION: Samuel Cabot, Inc., Celotex Corp. and Johns-Manville.
WINDOWS: Glass—double strength, quality A.
FLOOR COVERINGS: Corridors—cement, Solvig Co. Toilet rooms—tile, Gladding, McBean & Co. Remainder—asphalt tile, Armstrong Cork Co.
WALL COVERINGS: Classrooms—Weatherboard, U. S. Gypsum Co., above tile wainscots, Gladding, McBean & Co.
WOODWORK: Pine.
HARDWARE: Yale & Towne Mfg. Co.
ELECTRICAL INSTALLATION: Wiring — rigid conduit. Switches—Harvey Hubbell, Inc.
PLUMBING: Fixtures—Kohler Co. Soil pipes —cast iron, Vent pipes—galvanized steel. Water pipes—copper. Kitchen equipment—Whitehead Metal Products Co., Inc.
HEATING: Gas fired forced warm air.



Detail photographs on this page show some of the carefully designed, built-in equipment which lines the classroom walls. The upper picture and left-hand picture below show the teacher's desk and the adjoining supply cupboard at the "work area" end of the room, the third view a lunch-box cabinet and part of the wardrobe—a low, open hanging space in the corner behind the supply cabinet with its pole placed at the right height for the children's use. All of the cabinet work is made of plywood for economy and harmony, and was designed by the architects.

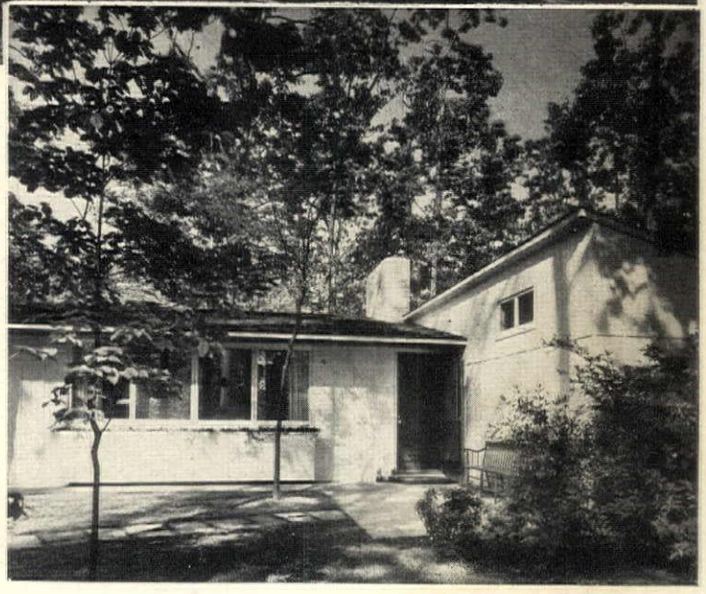




HOUSE IN SYOSSET, LONG ISLAND

WILLIAM HAMBY, ARCHITECT

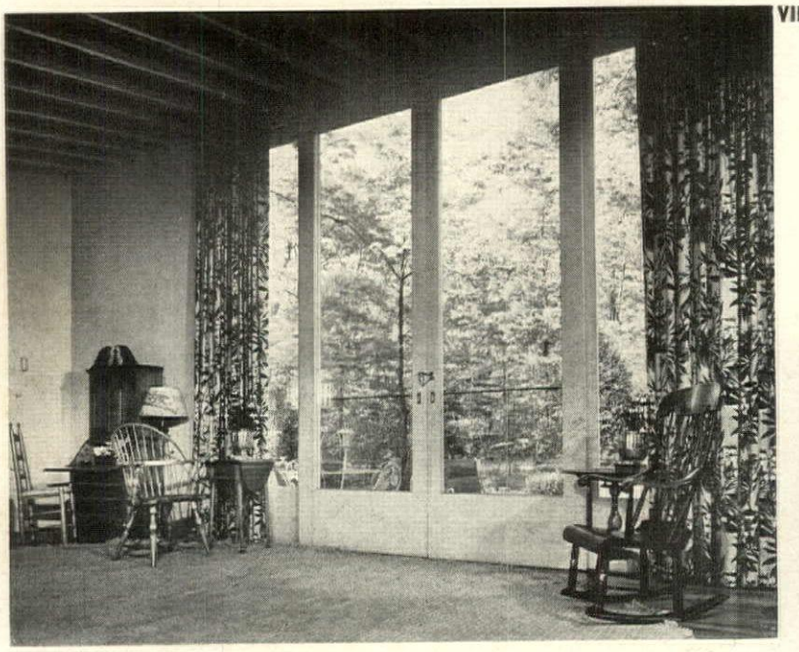




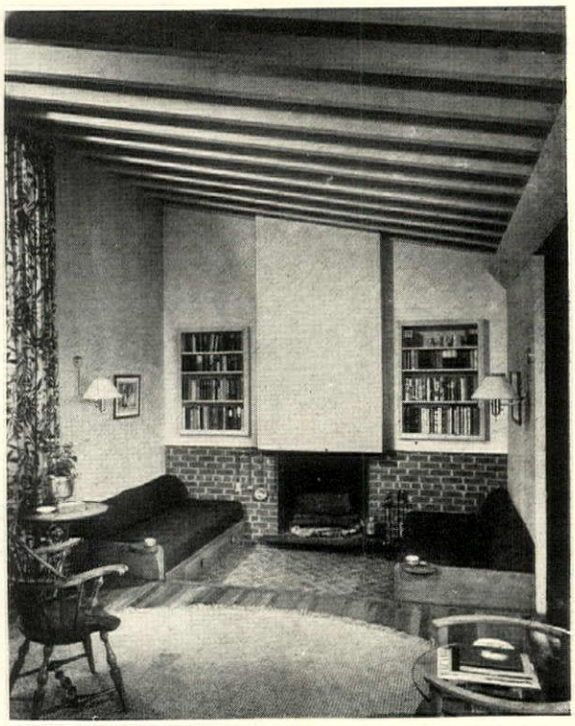
Photos, Richard Garrison

TWO BEDROOMS, KITCHEN-DINING ROOM, CONVERTIBLE GUEST ALCOVE

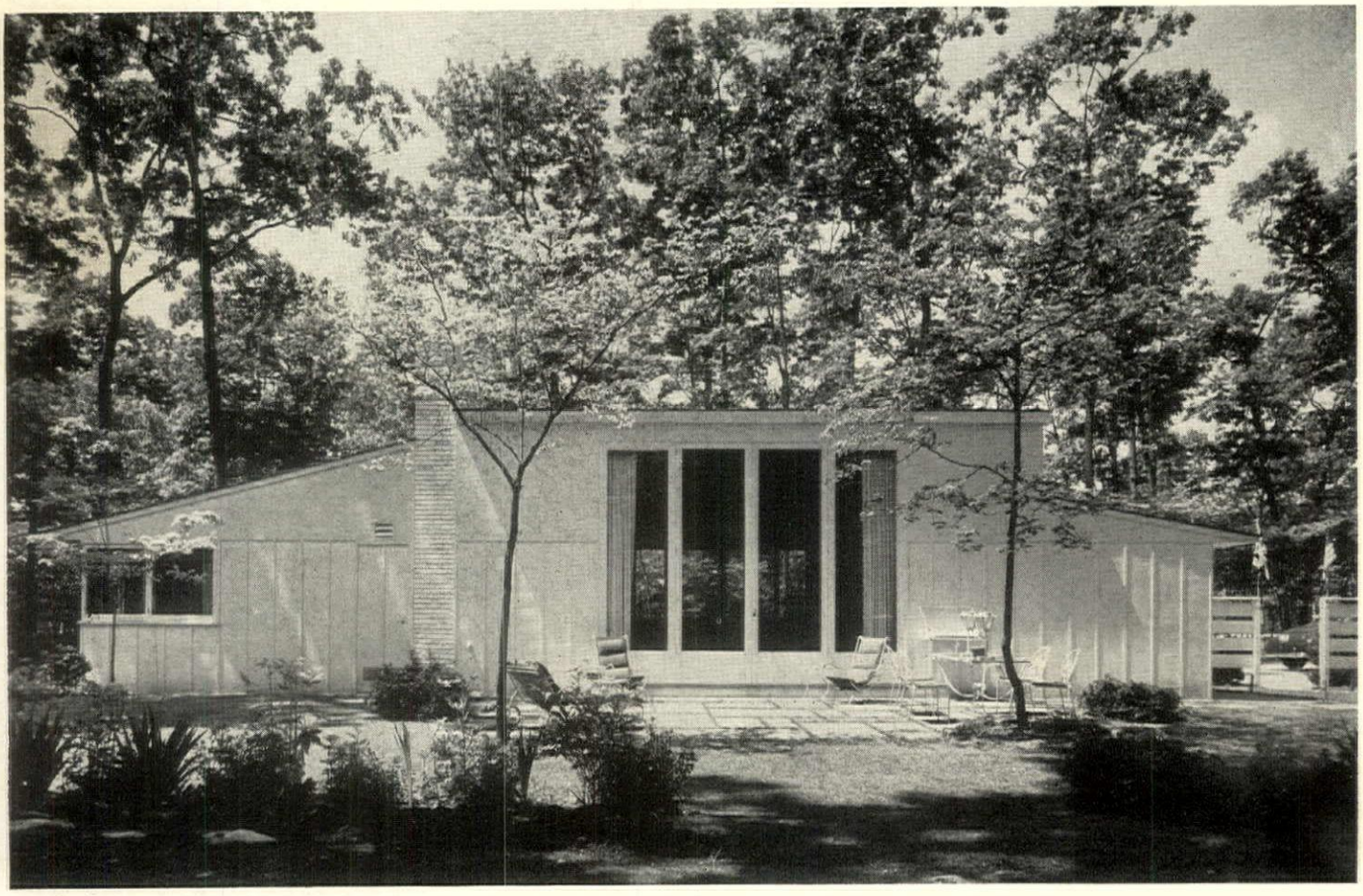
VIEW 1



VIEW 2



This small house on Long Island is one of the few in the East which has achieved on its own terms something of the informality and elegance so characteristic of the best modern work in California. A series of shed roofs cover an extremely compact and workable plan, and the use of the slope inside has contributed a great deal to the effect of spaciousness. The living room has single-light doors twelve feet high, opening on a pleasant view, and the couches in the sunken alcove may be used for guest accommodations. The dining space is at one end of the pine-walled kitchen; an unusual feature of this room is the use of glass from floor to ceiling. Plywood was used throughout for both interior and exterior finishes. Cost: approximately $6,500.

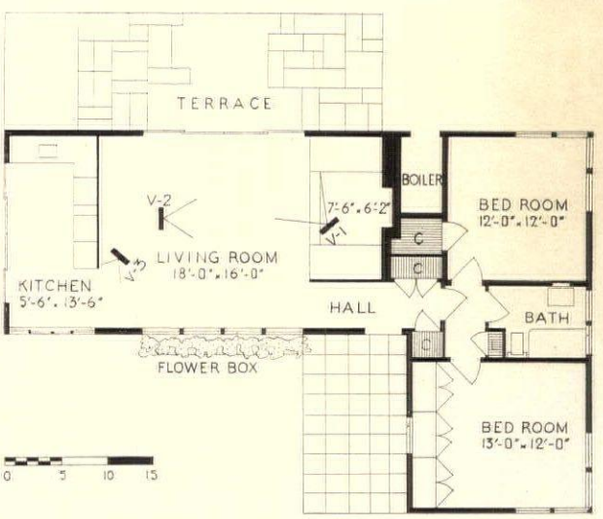




KITCHEN



VIEW 3



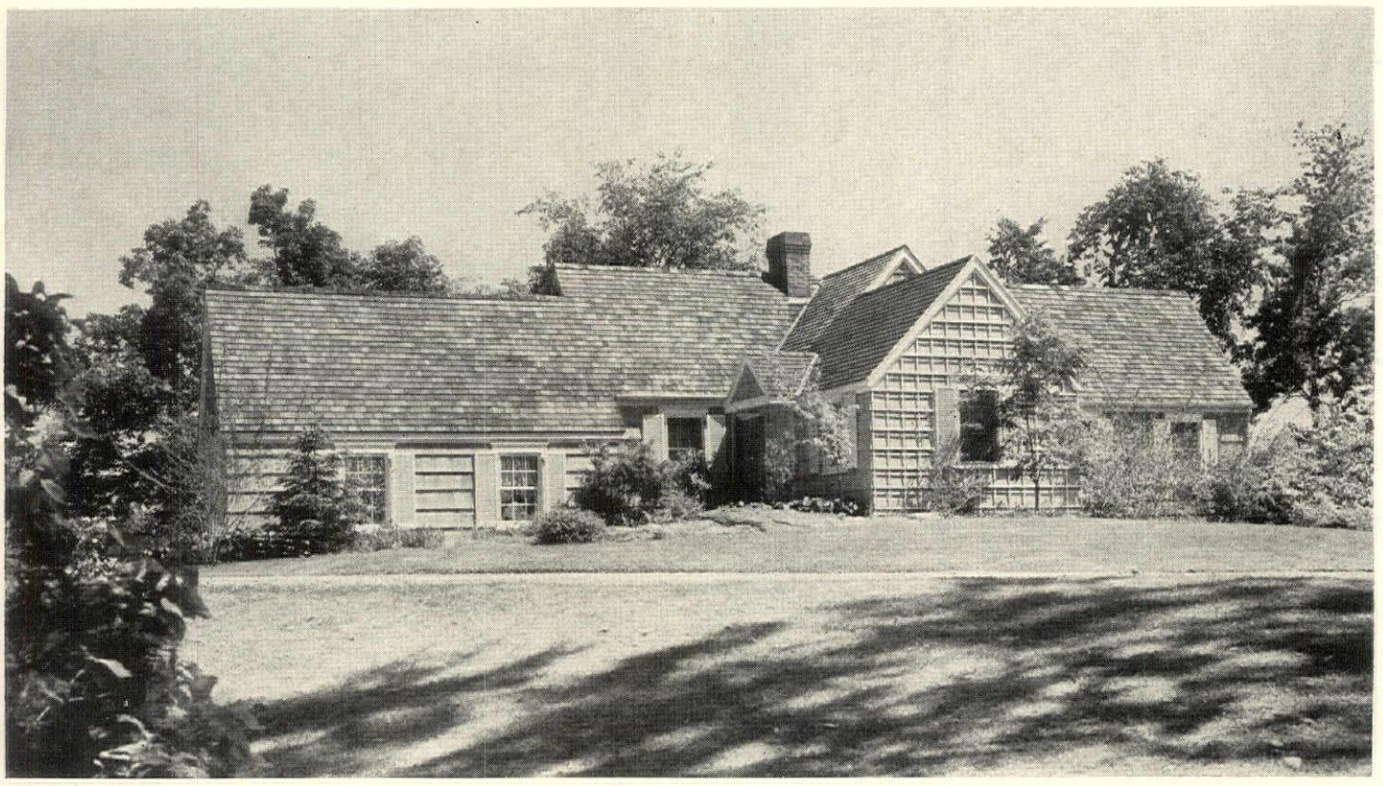
CONSTRUCTION OUTLINE

STRUCTURE: Exterior walls—studs, plywood and Vaporseal, Celotex Corp., inside—plywood on fir strips.
INSULATION: Rigid board and aluminum foil.
WINDOWS: Sash—wood, sliding. Glass—Libbey-Owens-Ford Glass Co.
KITCHEN EQUIPMENT: Range and refrigerator—Westinghouse Electric & Mfg. Co. Sink—Crane Co.
PLUMBING: Fixtures—Crane Co. Accessories—Chas. Parker Co. Water pipes—copper.
HEATING: Oil fired, hot air system, The Timken-Detroit Axle Co.

THREE BEDROOMS, TWO BATHS, ATTACHED GARAGE.



Photos, Richard Garrison



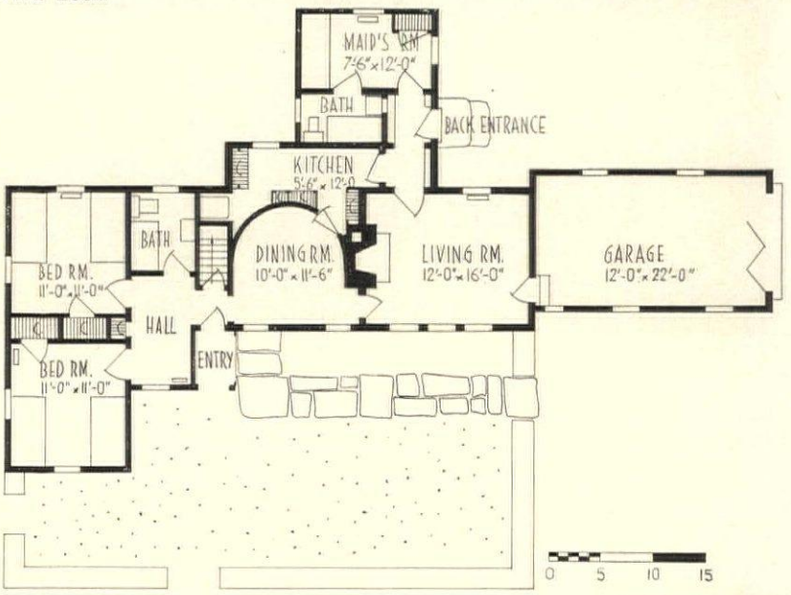


BEDROOM

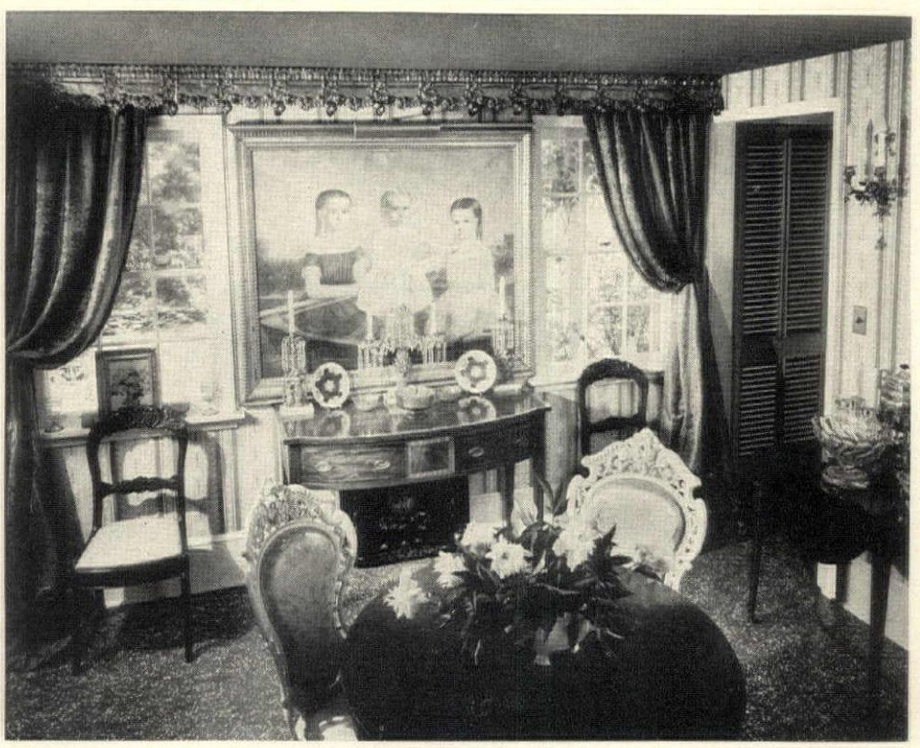


LIVING ROOM

The most startling feature of this otherwise very normal country house is the ante-bellum richness of the living and dining rooms. The furniture and accessories in these rooms, while out of scale for interiors of this size, have been handled with such bold consistency that they offer a very pleasant change from the customary, safe 18th Century treatment. The house has been rather casually arranged on the irregular site, and is appropriately informal in its general appearance. Placing of the main bath right off the entrance hall is most unusual. The kitchen is an oddly shaped room, lighted by only one window. Cost: approximately $12,000.



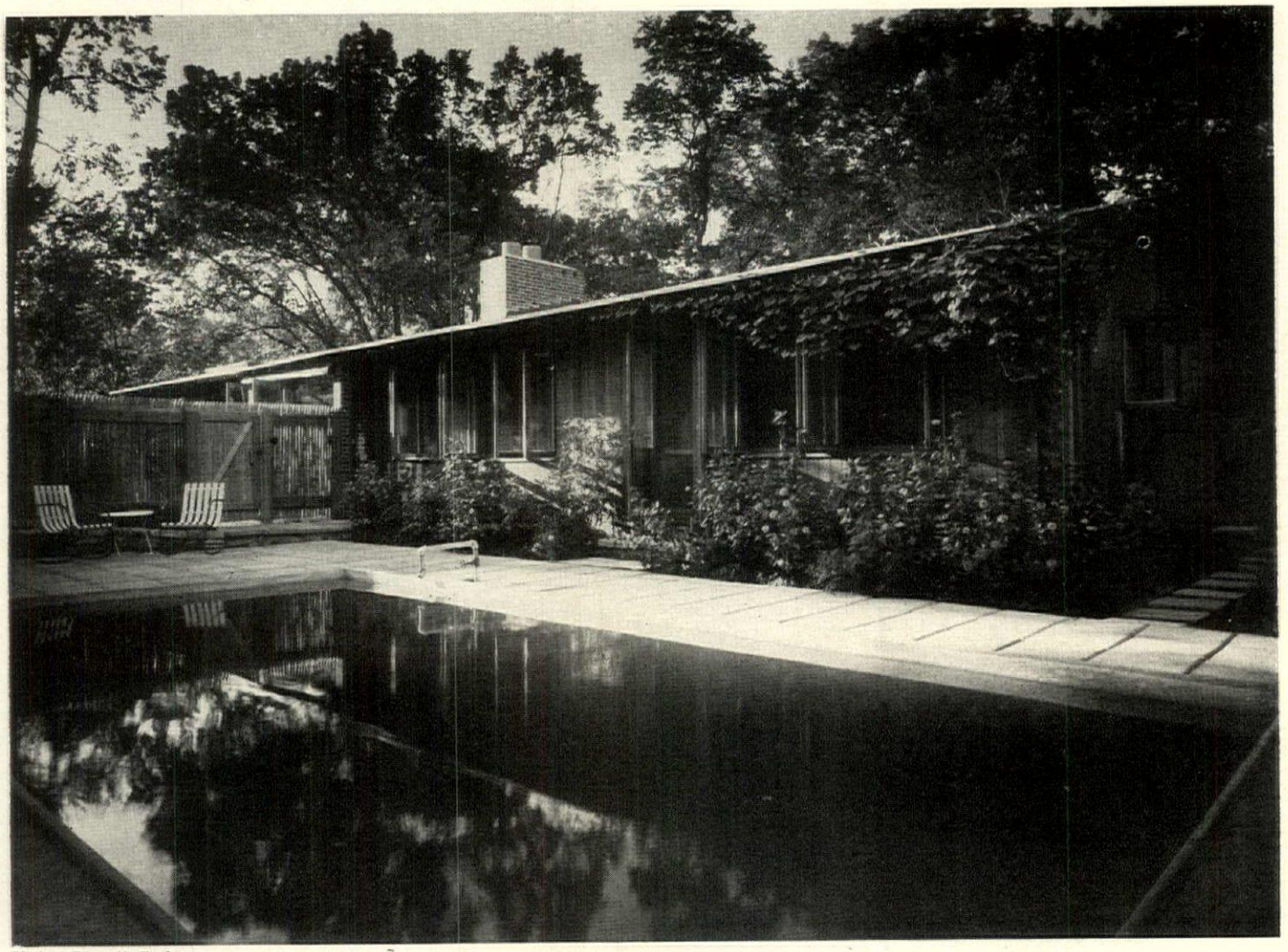
DINING ROOM



CONSTRUCTION OUTLINE

STRUCTURE: Exterior walls—wood frame, shingles.
INSULATION: Outside walls and roof—Balsam wool, Wood Conversion Co.
FIREPLACE: Damper—H. W. Covert Co.
WINDOWS: Sash—Curtis Co's. Glass—Libbey-Owens-Ford Glass Co.
FLOOR COVERINGS: Kitchen and bathrooms—linoleum, Armstrong Cork Co.
WALL COVERINGS: Main rooms—wallpaper, Richard E. Thibaut, Sigfrid K. Lonegren, Inc. and Wolf Bros. Wallpaper Co.
PAINTS: Devoe & Raynolds.
HARDWARE: P. & F. Corbin and Yale & Towne.
ELECTRICAL INSTALLATION: Wiring system—BX. Fixtures—Lightolier Co.
KITCHEN EQUIPMENT: Range and refrigerator—General Electric Co. Cabinets—Morgan Sash & Door Co.
BATHROOM EQUIPMENT: Fixtures American Radiator-Standard Sanitary Corp.
PLUMBING: Water pipes—Chase Brass & Copper Co.
HEATING: Boiler and radiators—Crane Co. Thermostat—Minneapolis-Honeywell Regulator Co.

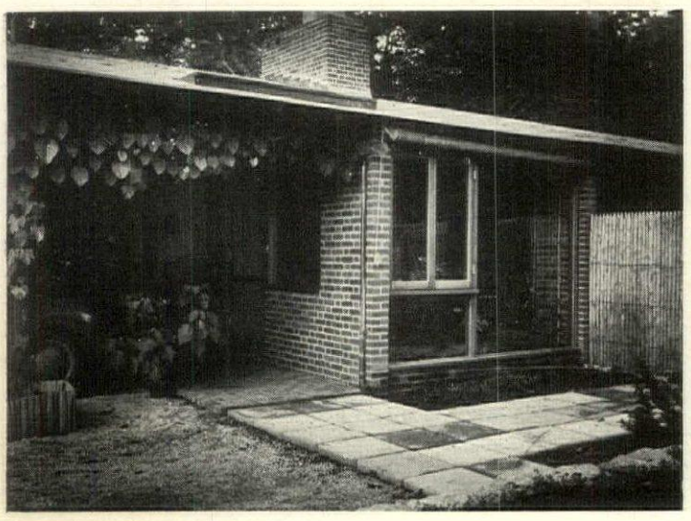
TWO BEDROOMS, LIVING DINING ROOM, CARPORT



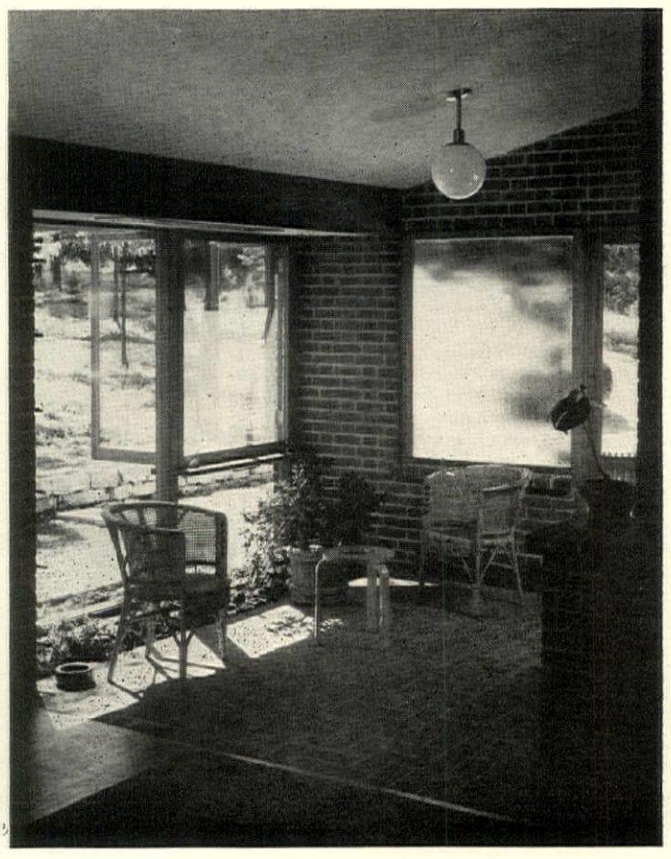
Photos, Bennett Tucker

HOUSE IN ST. LOUIS, MISSOURI

This one-story plan places the service rooms at the front and the bedrooms at the back of the house, with an L-shaped living-dining room in the middle. Well adapted to a plot of generous width, this arrangement has the advantage in this instance of placing the living room and sun room towards the south, since the front of the house faces west. Also on this side, the paved terrace and swimming pool are screened from the adjoining property by split-sapling fencing which is carried around at the back to shield a bathers' entrance to the house by way of the bathroom. The latter is ingeniously divided into three parts, producing the effect of two bathrooms with a single tub. The straightforward treatment of the exterior has achieved a rare feeling of delicacy more appropriate to residential work than the heavy-handed treatments so frequently encountered.



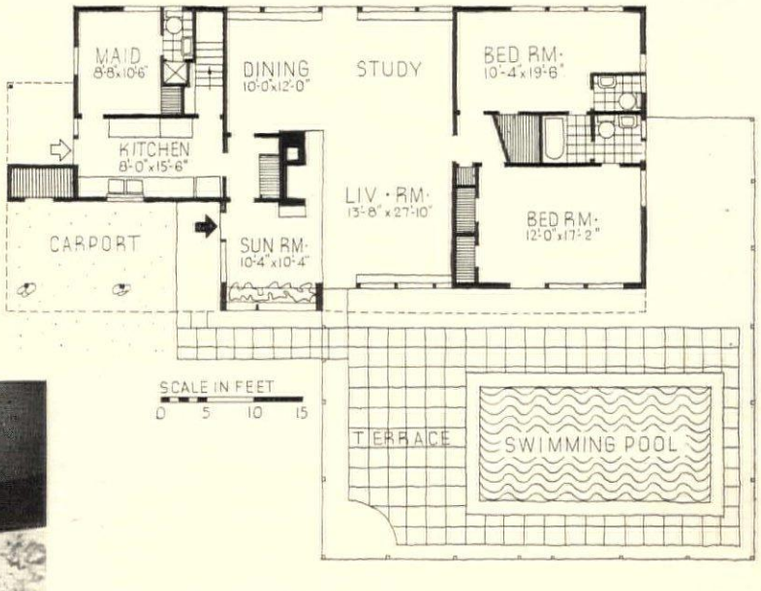
SUN ROOM



JOSEPH P. RICHARDSON & HUSON JACKSON, DESIGNERS



DIEDRICH F. RIXMANN, ASSOCIATE



DINING ROOM



CONSTRUCTION OUTLINE

EXTERIOR WALLS: Cypress siding; inside—U. S. Gypsum Co. Rocklath and plaster.
ROOF: Mineral surface roofing, Philip Carey Co.
FLOOR COVERINGS: Kitchen and bathrooms—linoleum, Armstrong Cork Co.
PAINTS: Pratt & Lambert.
HARDWARE: Schlage Lock Co.
KITCHEN EQUIPMENT: Range—General Electric Co. Refrigerator—Westinghouse Electric Co. Sink—Crane Co.
BATHROOM EQUIPMENT: Tub—Briggs Mfg. Co.; remainder—Kohler Co. Cabinets—Hallenscheid & McDonald.
HEATING: Forced warm air system—American Radiator-Standard Sanitary Corp. Grilles—Waterloo Register Co. Water heater—Timkin Silent Automatic Div., Timken Detroit Axle Co.

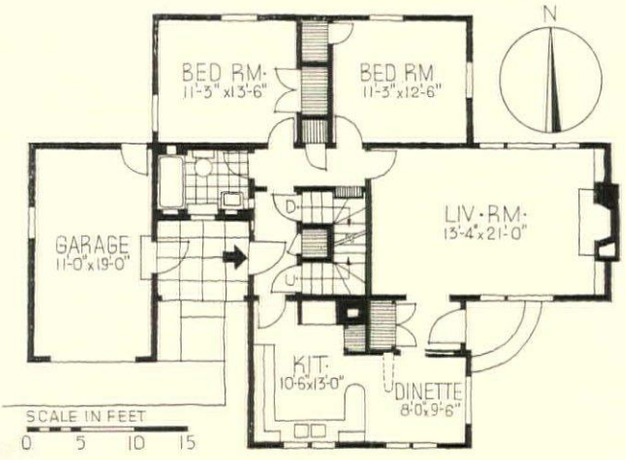
THREE BEDROOMS, DINETTE, ATTACHED GARAGE



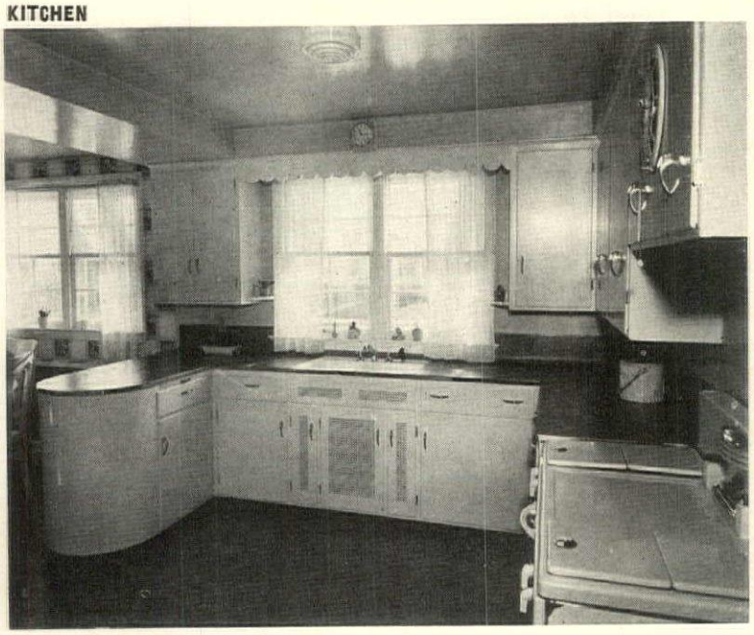
NAPOLEON, OHIO

E. L. BAKER, DESIGNER

The designer comments, "A wide frontage and very shallow corner lot presented a difficult design problem, as the owner required a house with a double entry, controlled from the service area. The bedrooms were to be located away from both streets to get as much privacy as possible. There is one bedroom on the second floor and recreation space in the basement." Cubage: 23,000. Cost: $6,800.



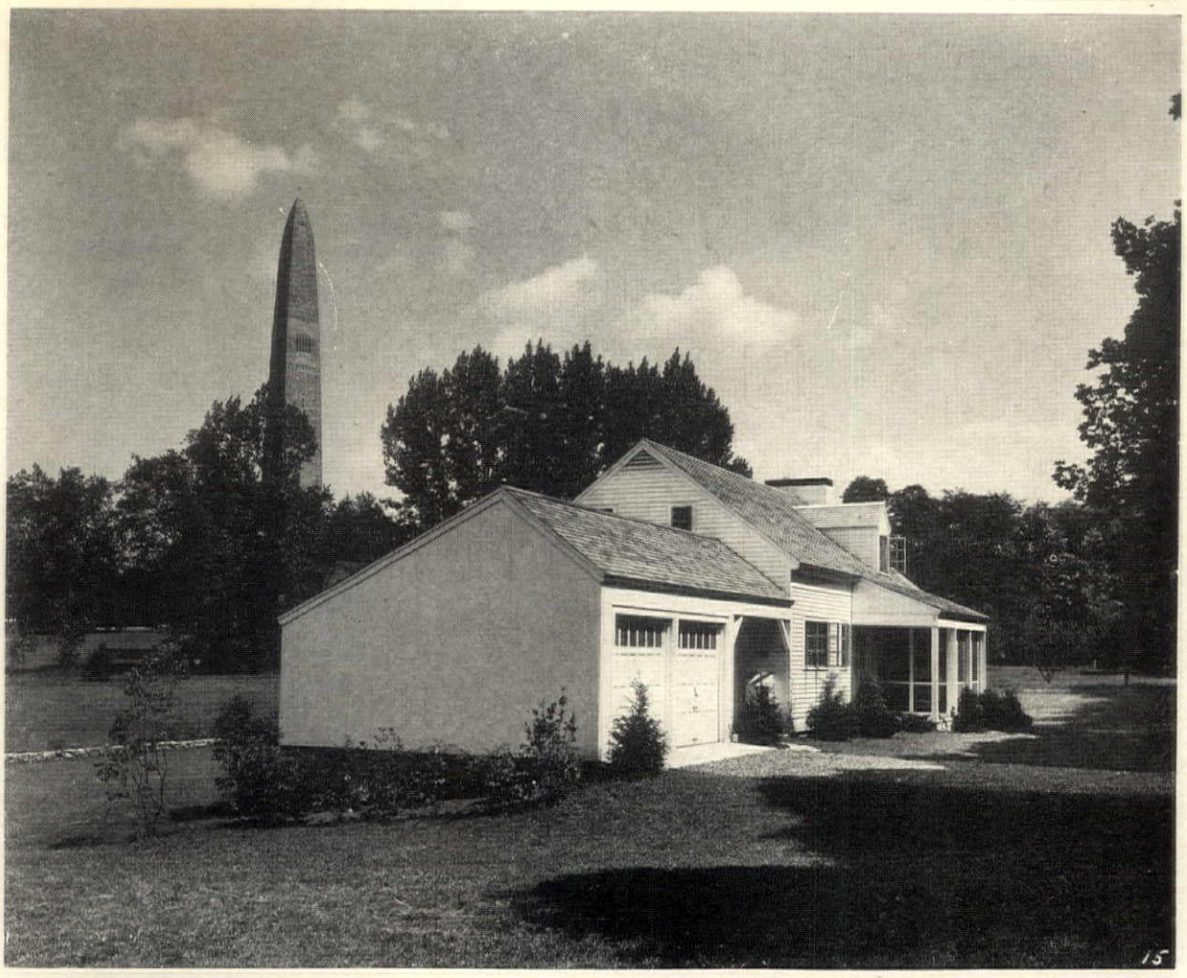
KITCHEN



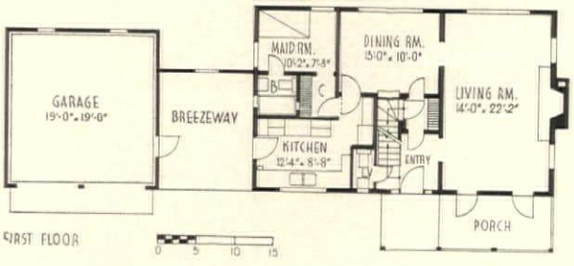
CONSTRUCTION OUTLINE

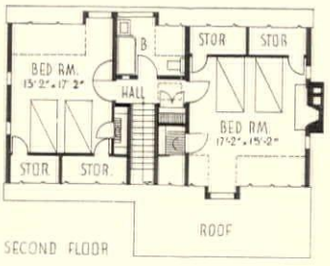
STRUCTURE: Exterior walls—red cedar siding, Celotex Corp. sheathing, Homasote flush siding, Agasote Millboard Co.
ROOF: Asphalt shingles, U. S. Gypsum Co.
FIREPLACE: Damper—Donley Bros.
INSULATION: Rockwool, Philip Carey Co.
WINDOWS: Glass—single strength, quality A, Libbey-Owens-Ford Glass Co.
FLOOR COVERINGS: Kitchen and bathroom—linoleum, Armstrong Cork Co.
PAINTS: Samuel Cabot, Inc. and Sherwin-Williams Paint Co.
ELECTRICAL INSTALLATION: Fixtures—Lightolier Co.
KITCHEN EQUIPMENT: Range—Magic Chef, American Stove Co. Refrigerator—General Electric Co.
BATHROOM EQUIPMENT: Fixtures—American Radiator-Standard Sanitary Corp. Cabinet—Miami Cabinet Div., Philip Carey Co.
PLUMBING: Water pipes—Chase Brass & Copper Co.
HEATING: Oil fired forced warm air.

THREE BEDROOMS, TWO BATHS, LAVATORY, BREEZEWAY.



OLD BENNINGTON, VT. **van der GRACHT & KILHAM, ARCHITECTS**





Photos, Lewis R. Brown



A very workable small house with a great deal of usable space fitted into a restricted area. The maid's room is very well placed, giving complete privacy to both maid and the family. The attached garage is virtually a necessity under Vermont winter conditions, and the breezeway provides useful storage space. Cubage: 27,000. Cost: $8,400.

CONSTRUCTION OUTLINE

ROOF: Red cedar shingles.
FIREPLACE: Damper—H. W. Covert Co.
SHEET METAL WORK: Flashing—zinc.
INSULATION: Roof—4 in. rockwool.
WINDOWS: Sash—steel, Detroit Steel Products Co. Glass—double strength, quality B, Libbey-Owens-Ford Glass Co.
GARAGE DOORS: Overhead Door Co.
HARDWARE: P. & F. Corbin Co.
BATHROOM EQUIPMENT: American Radiator-Standard Sanitary Corp.
HEATING: Boiler and radiators—American Radiator-Standard Sanitary Corp. Water heater—Taco Heaters, Inc.

FOUR BEDROOMS, THREE BATHS, LAVATORY, LAUNDRY, ROOF DECK.



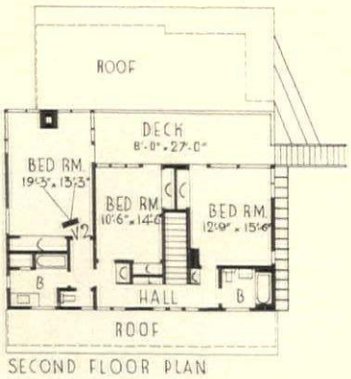
Photos, Fred R. Dapprich

HOUSE IN LOS ANGELES, CALIF.

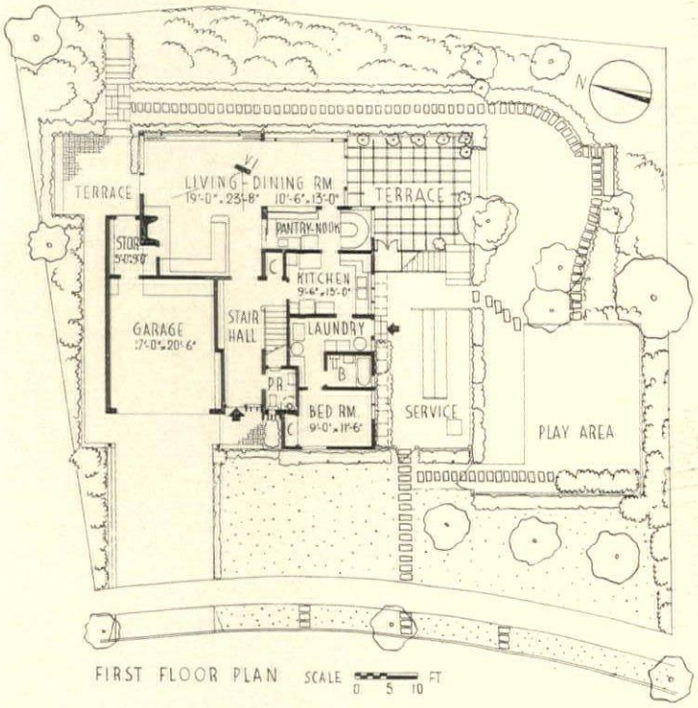
The architects comment, "Located on a hillside sloping to the east, the house commands a wide view of the city and the distant mountains. The contours, and the owner's desire for garden areas on the south, dictated the location of the building on the site, while the view and the relationship of the rooms and garden determined the general plan. The first floor living areas open on terraces to both north and south so that one may choose either sun or shade. The L-shaped living-dining room may be divided by curtains. The pantry serves for breakfast and children's meals by day, and as a bar and motion picture projection room by night. The garden is planned to provide well related areas for service, child play and outdoor play, appropriately divided by walls and planting."

VIEW 1

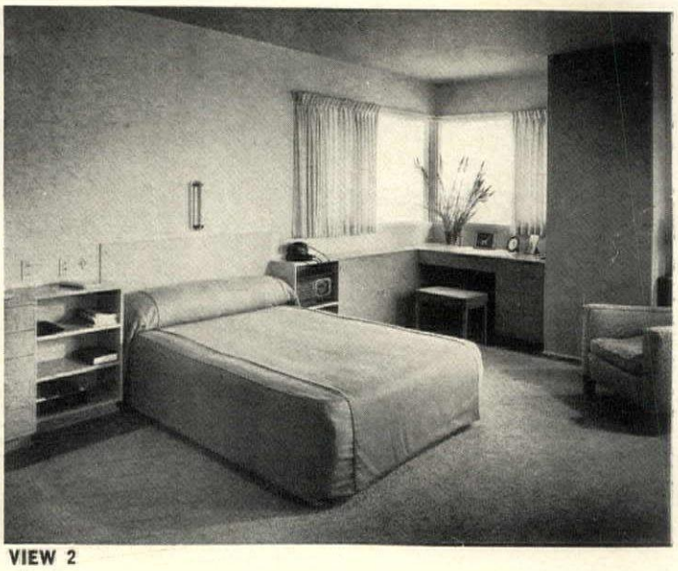




SECOND FLOOR PLAN



FIRST FLOOR PLAN SCALE 0 5 10 FT


VIEW 2

CONSTRUCTION OUTLINE

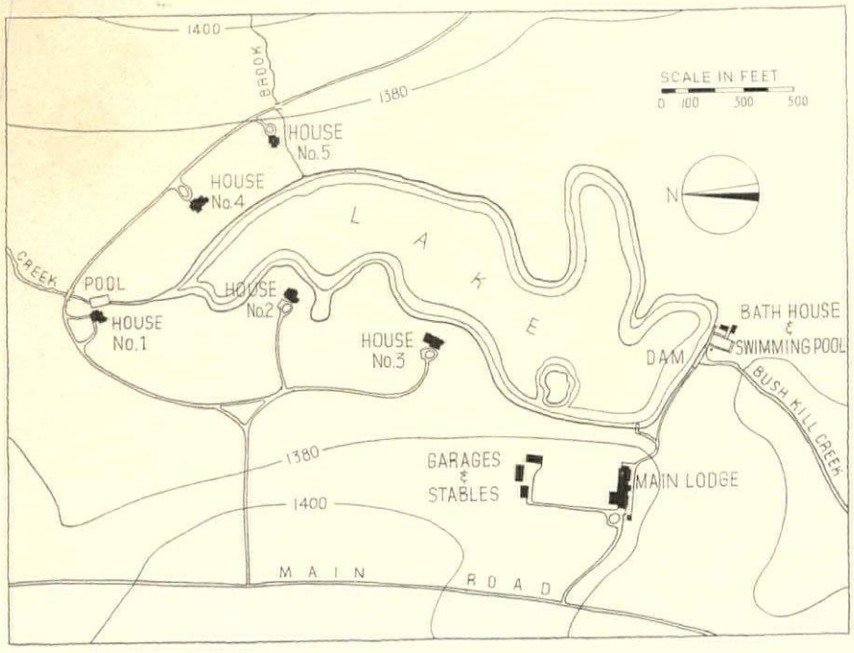
STRUCTURE: Exterior walls—Calif. redwood siding or stucco; inside—plaster on U. S. Gypsum Co. lath.
INSULATION: Attic floor and roof—mineral wool, Eagle-Picher Co.
WINDOWS: Sash—steel, Truscon Steel Co.
FLOOR COVERINGS: Kitchen and bathrooms—linoleum, Armstrong Cork Co.
HARDWARE: California Hardware Co.
PAINTS: W. P. Fuller Co. and Reardon Co.
LAUNDRY EQUIPMENT: Washing machine—Bendix Home Appliance, Inc.
BATHROOM EQUIPMENT: American Radiator-Standard Sanitary Corp. and Briggs Mfg. Co.
HEATING: Gas fired forced warm air system, Payne Furnace Co. Grilles—Hart & Cooley.



FIVE HOUSES IN ST. JOSEPH'S, NEW YORK

EUGENE SCHOEN & SONS, ARCHITECTS

These five houses, built for members of the same family, form a small private summer resort on a property of 10,000 acres. The land is thickly wooded, has a number of lakes, streams, a trout hatchery, and is being developed as a fish and game refuge. The complete privacy of the group and the fact that all houses were commissioned at the same time gave the architects an enviable opportunity to design the group as a whole. Each house was spotted on a rise of ground overlooking the lake, and each was oriented for proper exposure. While the individual dwellings conform to the living requirements of their owners, the general treatment (roofs, wall finishes and windows) is maintained as standard, giving a desirable appearance of uniformity to the group.

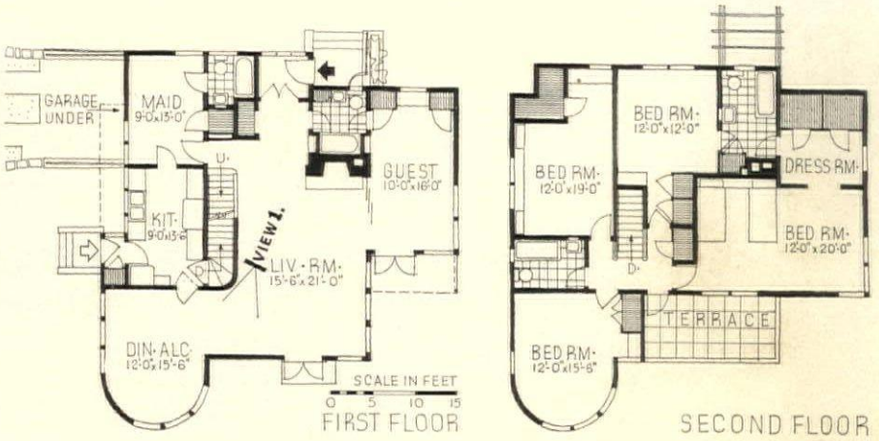


HOUSE NO. 5

The exteriors of all the houses show variations on the theme of natural redwood, asbestos shingles, double-hung windows and brick or stone. Most of the roofs, as in this example, are shed type, covered with greenish-gray asbestos shingles.







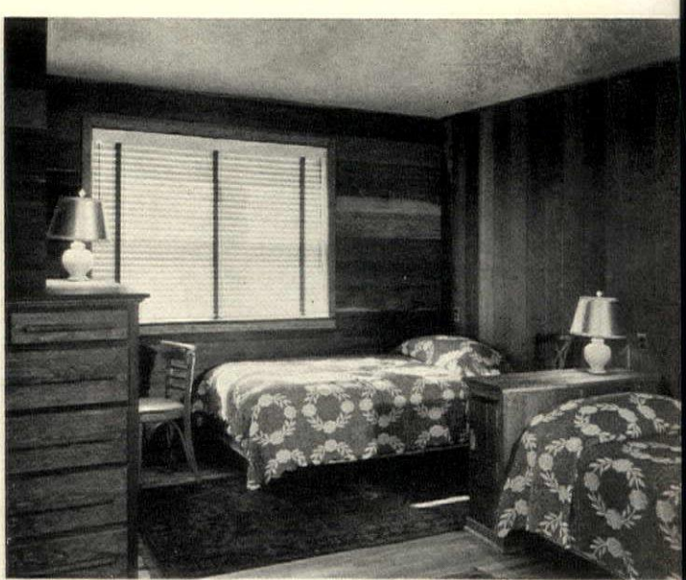
HOUSE NO. 1



A compact, two-story arrangement, with guest accommodations separated from the family's sleeping quarters. The sliding doors to the guest room are interesting, and permit an occasional extension of living room space. The bathroom is well placed for use as a downstairs lavatory.

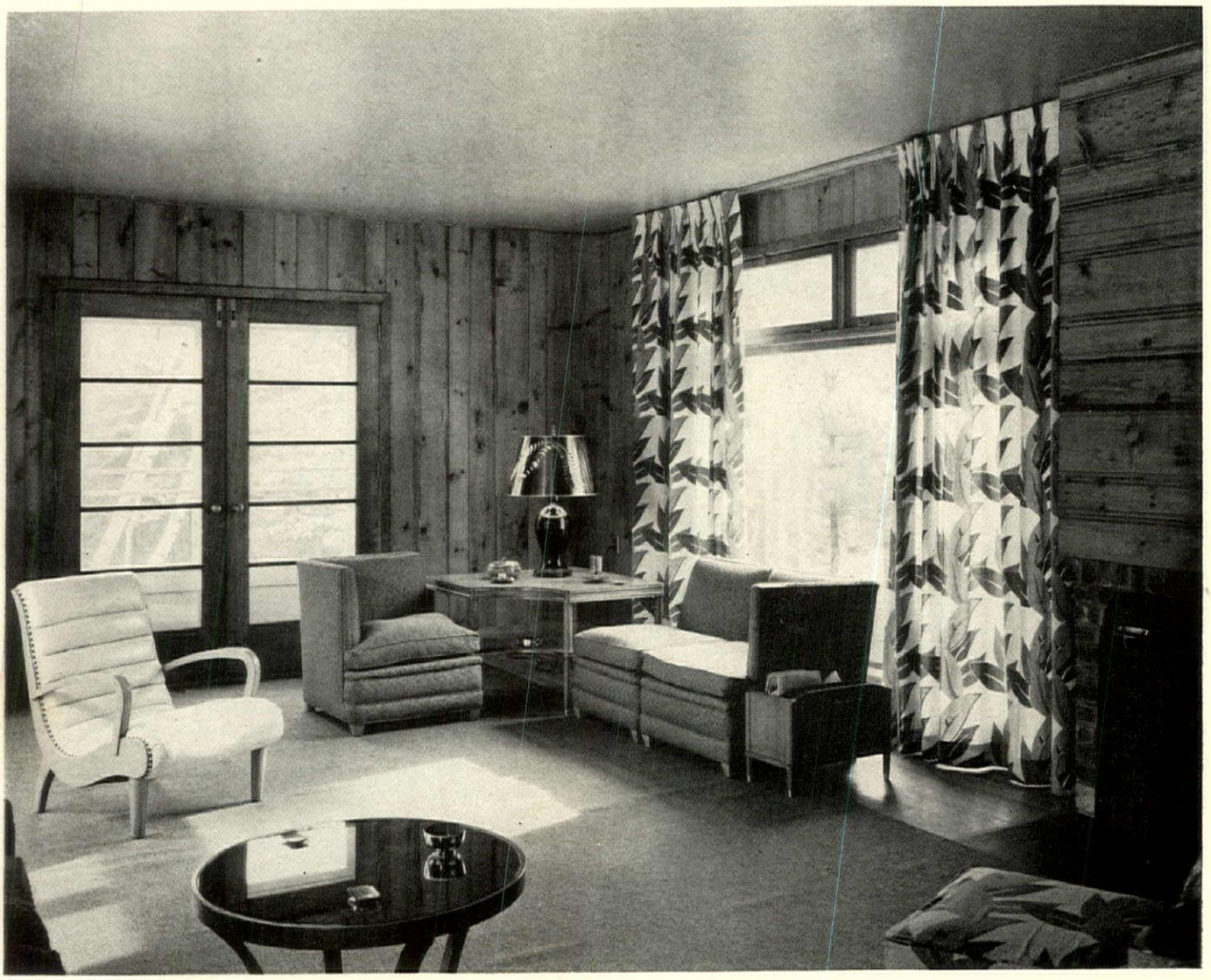
Rotan





HOUSE NO. 3

The typical mixture of asbestos and redwood siding is shown in the exterior view. Note how the upstairs decks are sheltered from north winds by the two-story portion of the house. Dry finishes were used throughout the houses since they were built in the winter.



HOUSE NO. 2

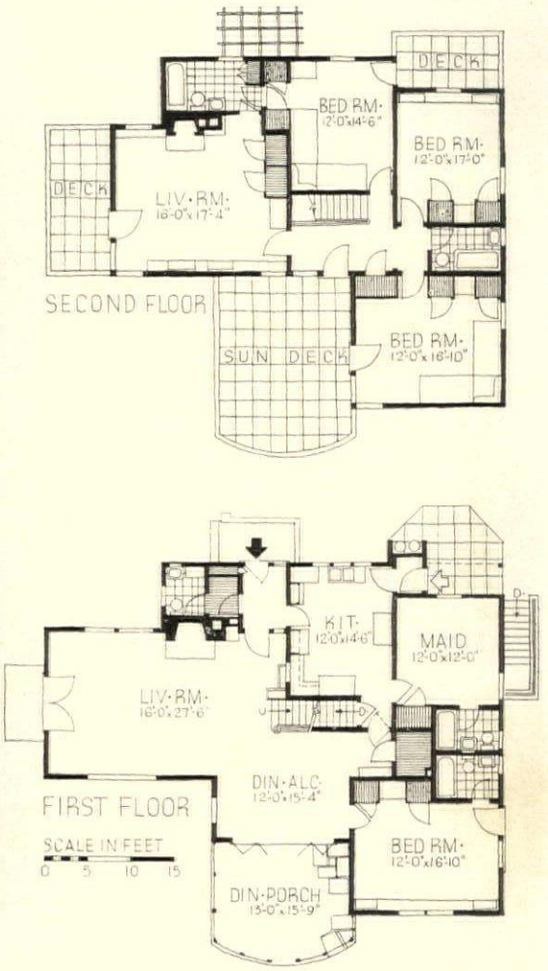
The fenestration of this example seems unnecessarily complex, but the effect of the interiors is much less restless than the exterior photograph would suggest. The wood paneling, slightly varied in texture, provides a pleasant background for fabrics, pictures and furniture. As in the other houses, the ground floor plan is very open in treatment, the guest room is separated from the other bedrooms, and decks are provided at the second floor level.

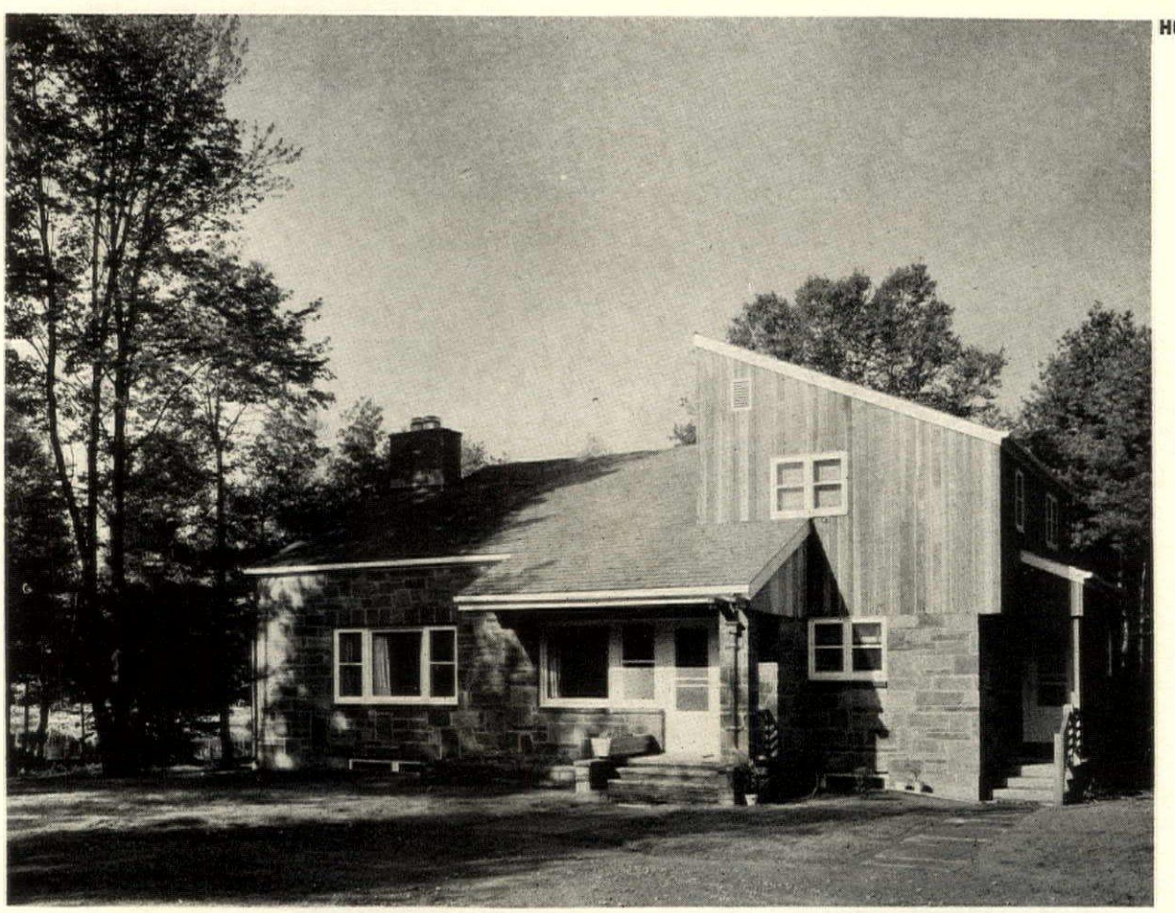
Rotan





Rotan





HOUSE NO. 4

ST. JOSEPH'S, N. Y.

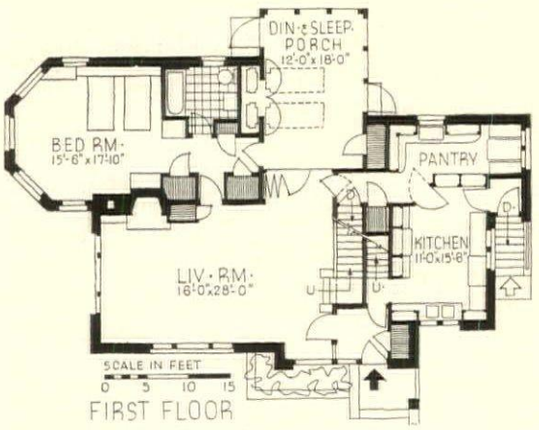
EUGENE SCHOEN & SONS, ARCHITECTS

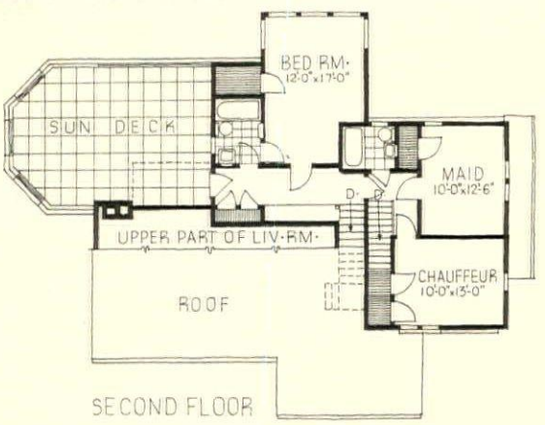
This house differs from its neighbors in the extensive use of stone on the exterior, and in the unusual height given the living room. The combined dining and sleeping porch is ingenious and practical, and, due to the location of the bath, can be used as part of a guest suite if desired. Most of the fixed furniture is carpenter-built, and is in good character with general room treatment. The upper floor is divided between the servants' rooms and the master bedroom. The large sun deck was apparently a standard requirement for all five of the houses. Construction costs for the group average between $1,200 and $1,500 per room.



Rotan

HOUSE NO. 4





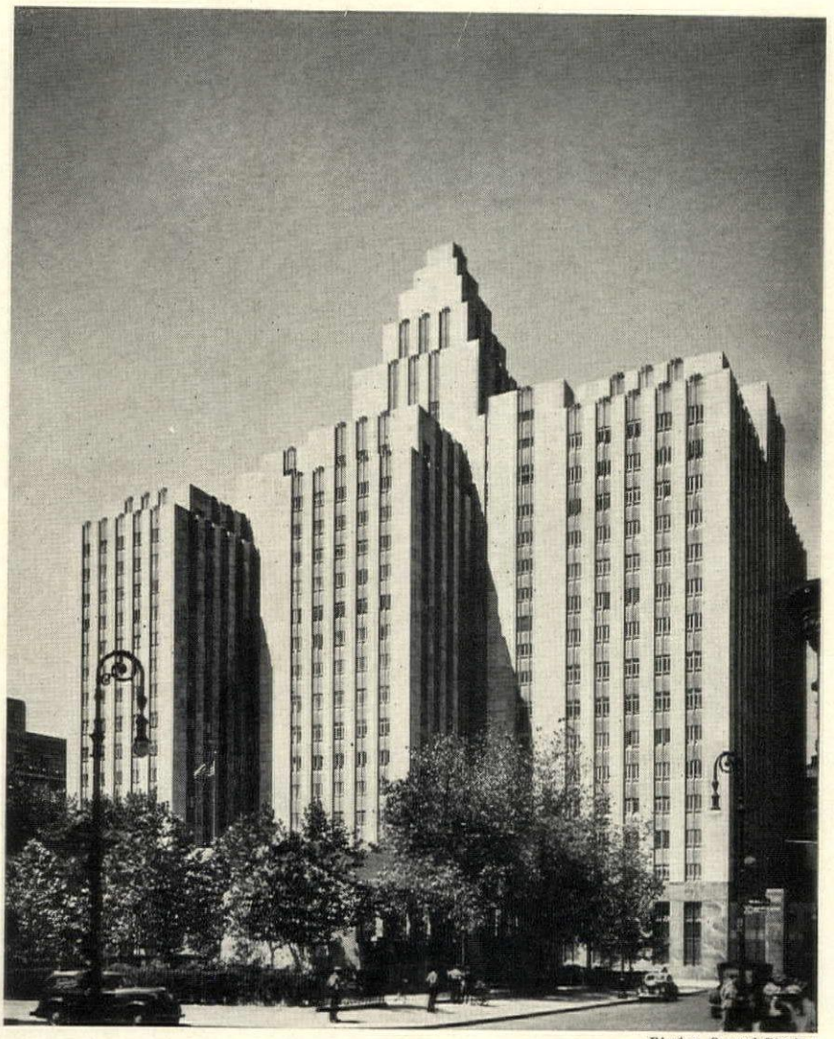


CONSTRUCTION OUTLINE

STRUCTURE: Exterior walls—Calif. redwood and Keasbey & Mattison asbestos shingles; inside—U. S. Gypsum Co. rockwool and wallboard and knotty pine. Ceilings—U. S. Gypsum and Celotex Corp. wallboard.
ROOF: Shingles, Keasbey & Mattison.
FIREPLACE: Damper—Heatilator Co.
WINDOWS: Sash—wood, Engler Millwork Corp. Glass—Libbey-Owens-Ford Glass Co.
WALL COVERINGS: Main rooms — wallpaper, Katzenbach & Warren, Artcraft Wallpaper Co., Grimmer Wallpaper Co. and Sigfrid K. Lonegren, Inc.
ELECTRICAL INSTALLATION: Switches—General Electric Co.
KITCHEN EQUIPMENT: Range—Roberts & Mander Stove Co. Refrigerator — Stewart Warren Refrigerator Service.
BATHROOM EQUIPMENT: American Radiator-Standard Sanitary Corp.
PLUMBING: Water pipes—American Brass Co.
HEATING: Carrier Corp. winter conditioning unit. Valves—Jenkins Bros. Thermostat—Minneapolis-Honeywell Regulator Co.

CRIMINAL COURTS BUILDING AND CITY PRISON

NEW YORK CITY



Photos, Sigurd Fischer



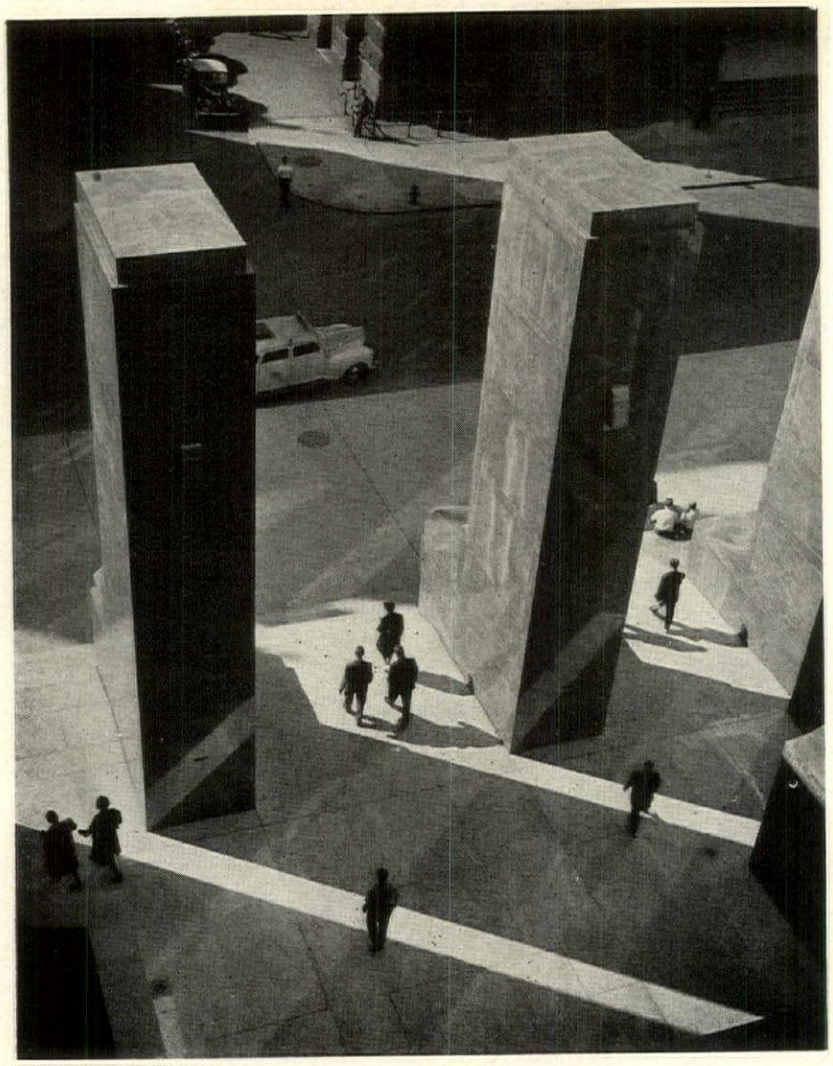
HARVEY WILEY CORBETT

CHARLES B. MEYERS

ASSOCIATE ARCHITECTS

DESIGN AND CONSTRUCTION
SUPERVISED BY THE
DEPARTMENT OF PUBLIC WORKS
IRVING V. A. HUIE
COMMISSIONER

CRIMINAL COURTS BUILDING AND CITY PRISON



ENTRANCE COURT

LOBBY



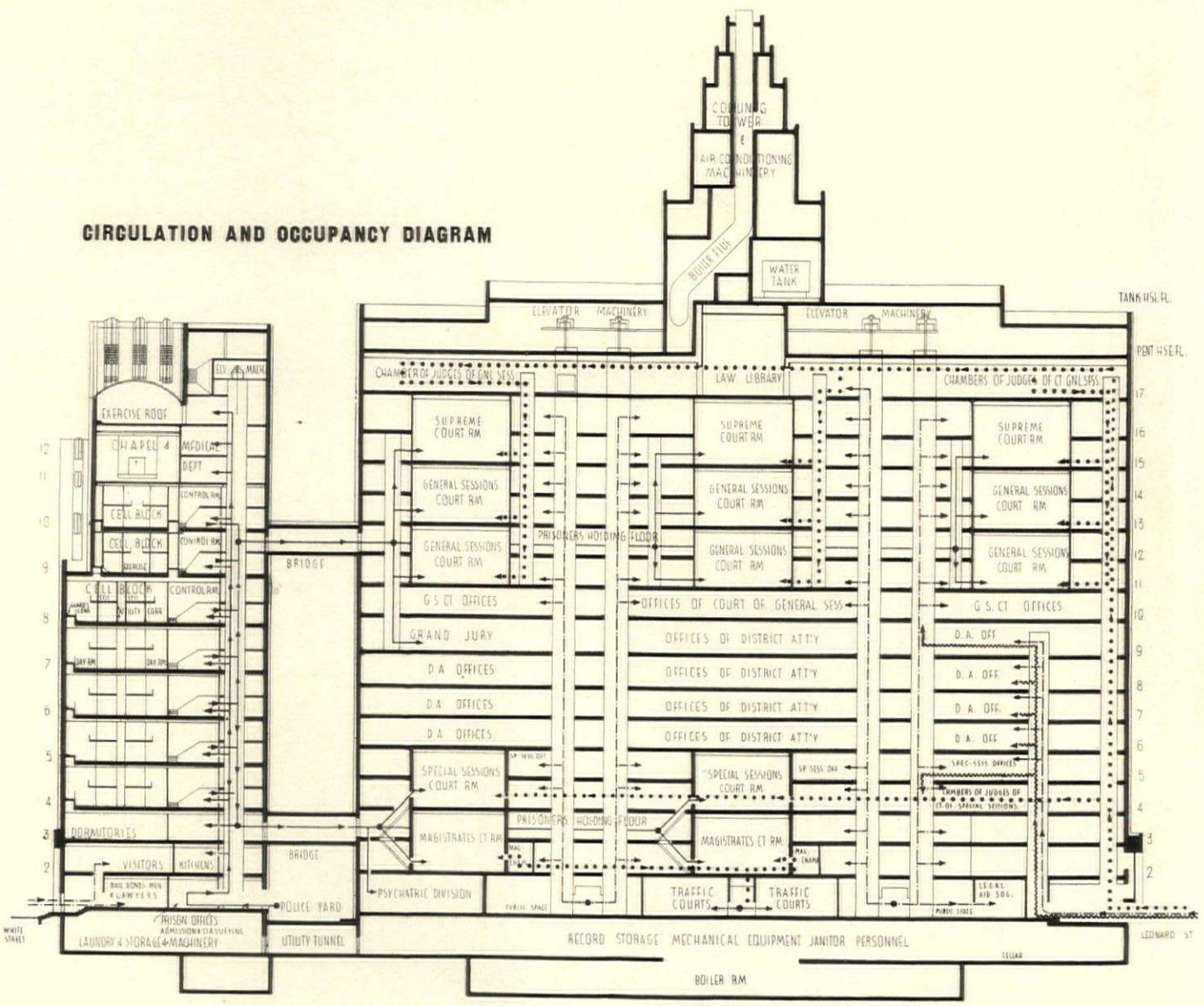
The new Criminal Courts Building occupies an area of two city blocks in downtown New York, and its construction involved, among other things, the closing of an existing street. It takes over the functions of a number of over-age structures in the neighborhood, including courts, offices and a prison, regrouping them in two units to take full advantage of the skyscraper's efficiency. The diagrammatic section on the page facing shows the traffic, circulation and occupancy: the main building covers almost three quarters of the site, and goes up to a height of seventeen stories. Here are found the courtrooms, the district attorney's offices, judges' chambers, etc. The prison is a separate building, connected to the main structure by two bridges and a utility tunnel. Something of an idea of the complexity of the planning problem may be gained by following the four types of circulation indicated, each of which must be properly related to the others and yet arranged so that no undesirable crossing of traffic takes place. The architects have noted several of the requirements that had to be met to produce the smoothly functioning building desired. These included the location of court rooms for quiet, uniform light and accessibility to their dependencies; one central corridor to all court rooms; reduction of dark spaces to a minimum; a typical court room wing with dimensions the same as those of an ideal office floor; provision of a separate unit for the district attorney within the building; entirely separate and controlled circulation between the prison and the courtrooms. The plans, reproduced on the pages which follow, show how these and other problems were solved.

In the general appearance of those spaces to which the public is admitted, the building conforms pretty much to the generally accepted idea of what a public building should look like. It uses materials which do not demand expensive maintenance, the lobbies and corridors are spacious, and there is enough of a suggestion of the Classic to recall the style tradition established in this field. Viewed as a whole, however, the impression is very distinctly that of an office building—an office building of a very special kind, to be sure, but a structure, nevertheless, which houses a great variety of functions in a reasonably flexible manner. Those features, such as the tower, which have been incorporated to stress the public nature of the building, have been handled with admirable directness and restraint.



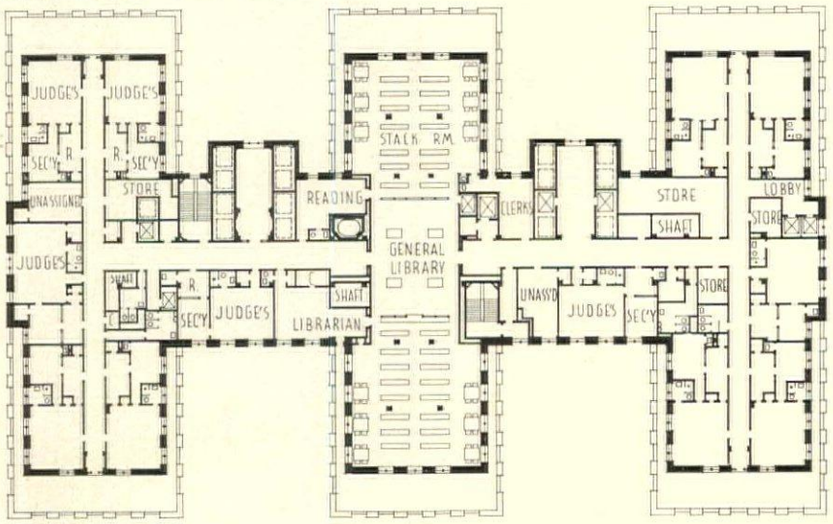
TYPICAL CORRIDOR

CIRCULATION AND OCCUPANCY DIAGRAM

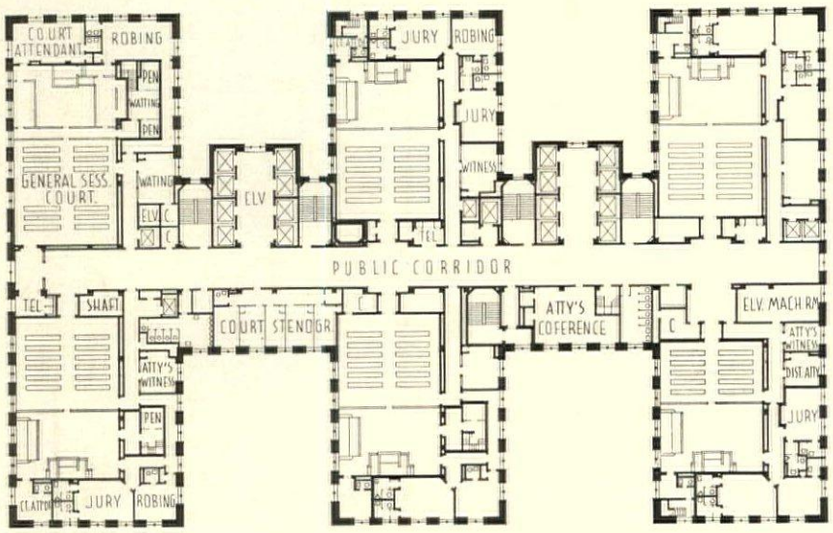


CRIMINAL COURTS BUILDING AND CITY PRISON

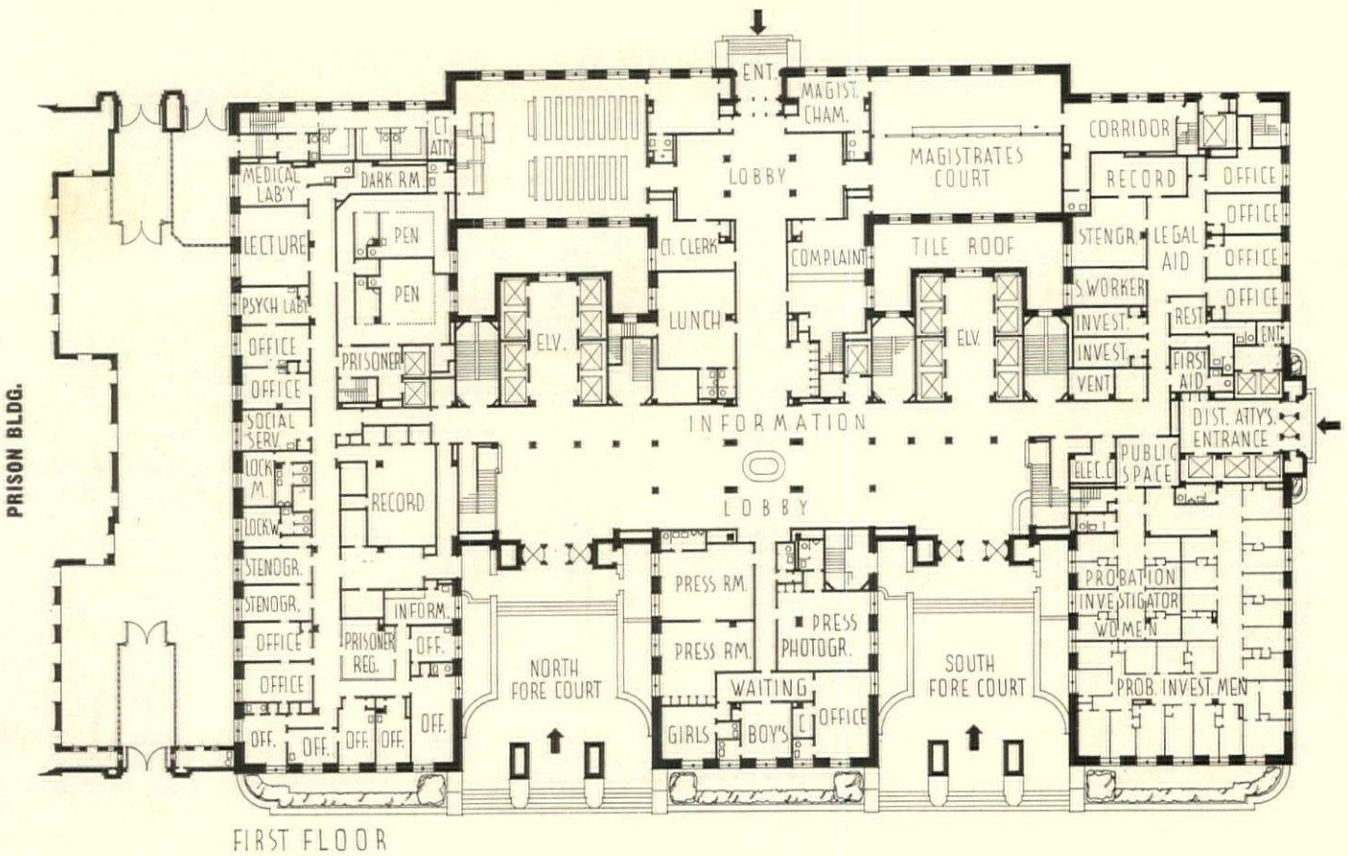
The plan at street level has two generous public halls leading directly into an elevator lobby in each case. Access to the main lobby from the street is through two impressive forecourts. In addition to the main public entrances there are separate entrances to the District Attorney's offices, to the Judges' chambers and to the Traffic Courts. One of the latter leads to the "Cafeteria" type court room where parking fines can be paid without delay. Services on this floor also include a lunch room and a psychiatric clinic. The eleventh floor shows the standard court room arrangement, with the service rooms accessible to the court personnel but closed to the public. Due to the height of the court rooms it was found possible to obtain two floors for each group of dependencies. The judges' chambers, on the seventeenth floor, follow a fairly typical office plan; the reference library is centrally located.



SEVENTEENTH FLOOR



ELEVENTH FLOOR

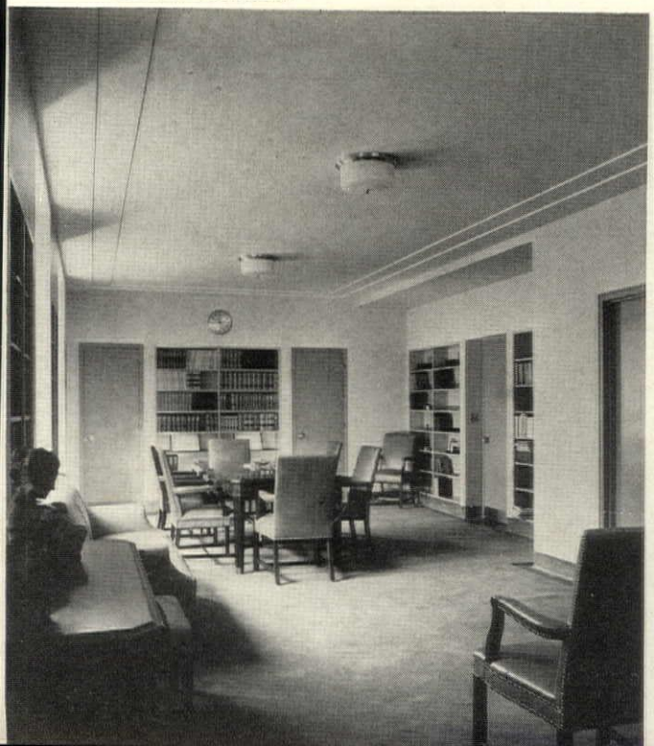


FIRST FLOOR



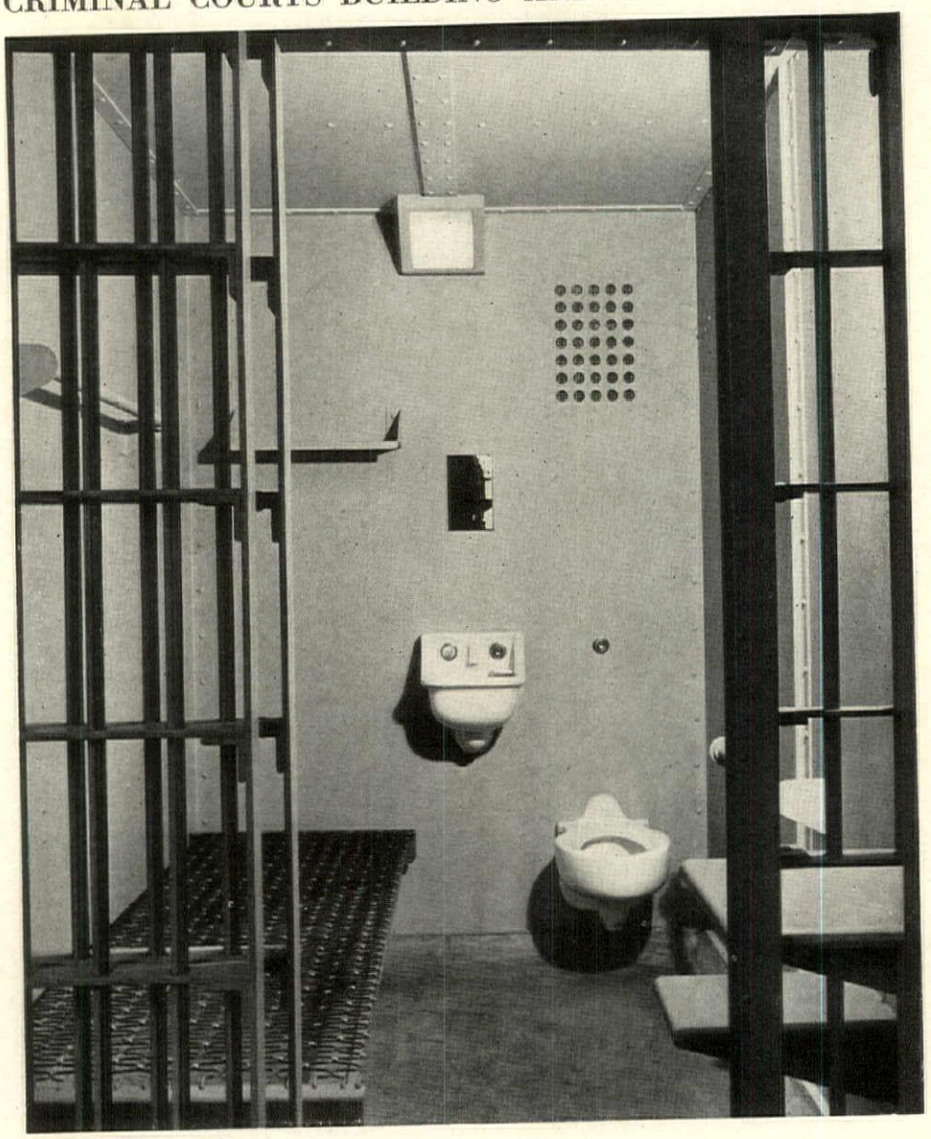
SPECIAL SESSIONS COURT ROOM

JUDGES' CHAMBER

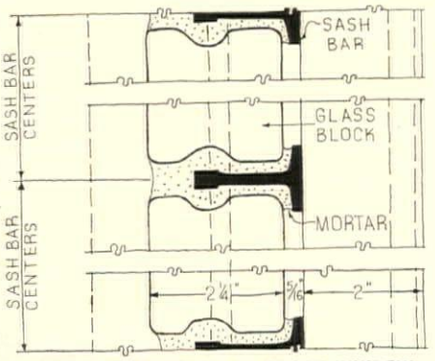


JURY POOLING ROOM



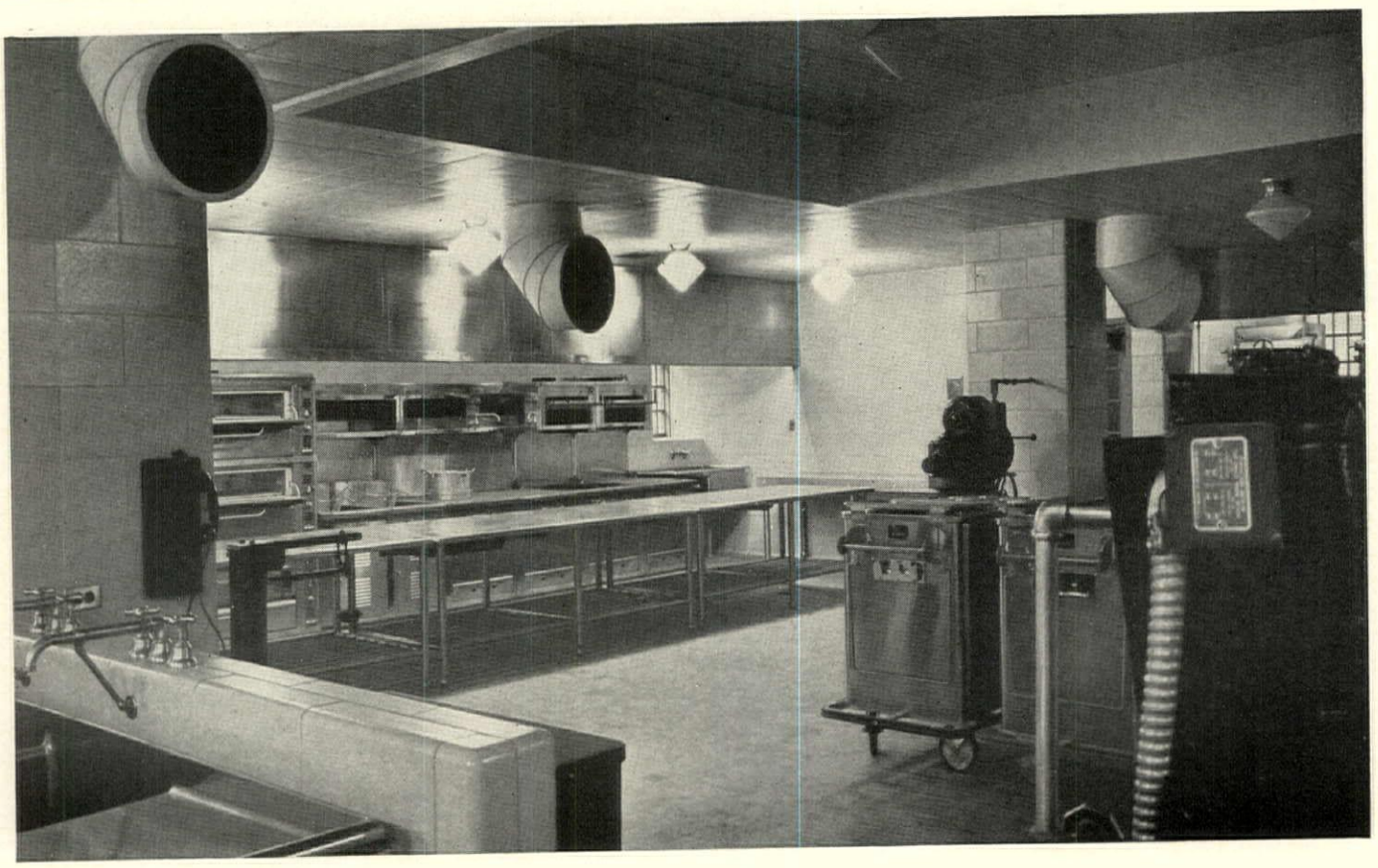


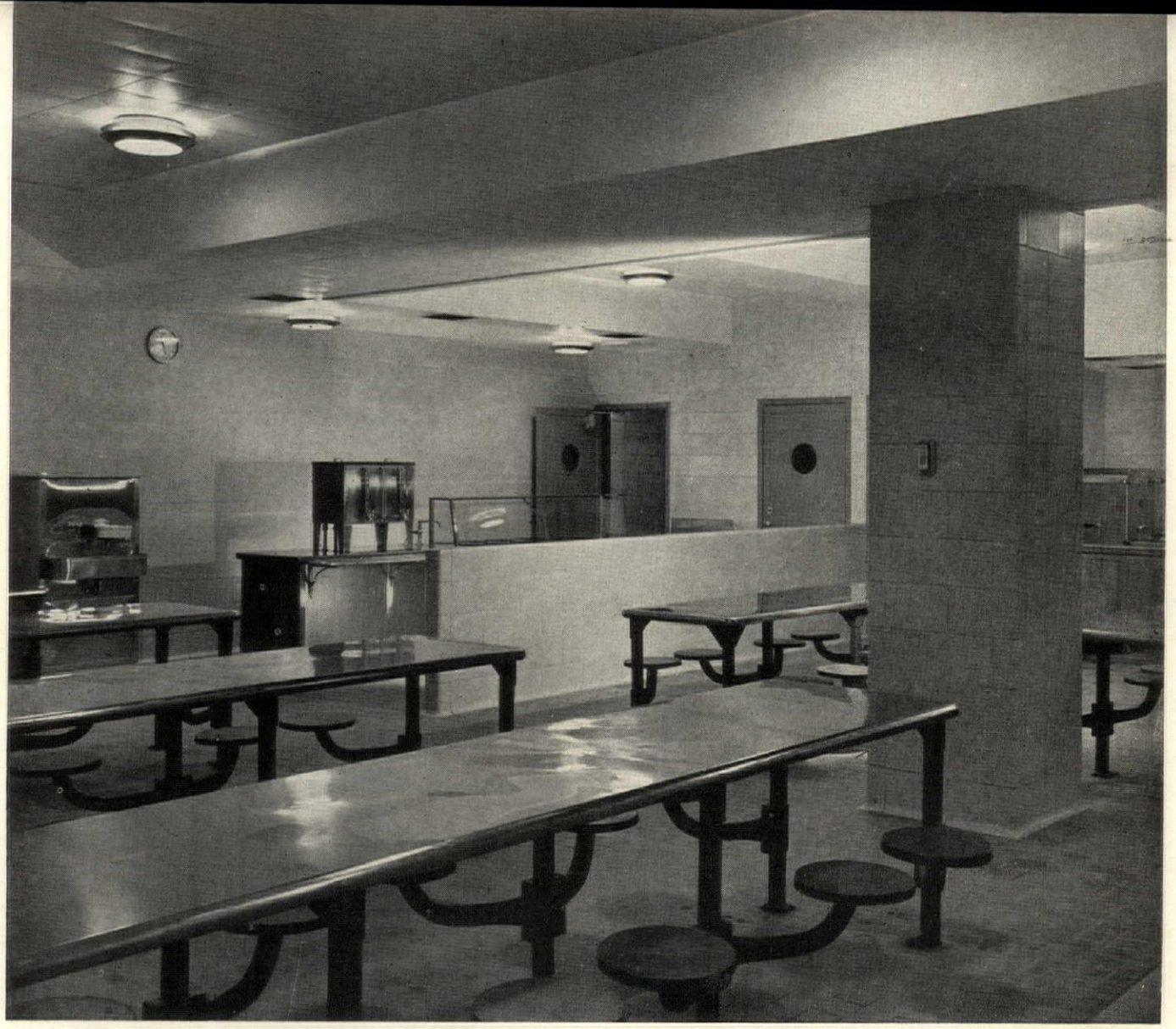
TYPICAL CELL



SECTION THROUGH GLASS BLOCK WINDOW PANEL SHOWING STEEL SASH BARS

KITCHEN





DINING ROOM

The steel cell construction of the prison's 835 cells includes the latest developments in escape-proof jail installations. The prison has its own kitchen, dining room and laundry. The combination of steel bars and solid glass block shown on the opposite page marks a new use for these building units, made possible through the development of a special resilient cement. The typical cell is an interesting study in elimination: it will be noted that there is nothing which could be removed by the occupant.

LAUNDRY



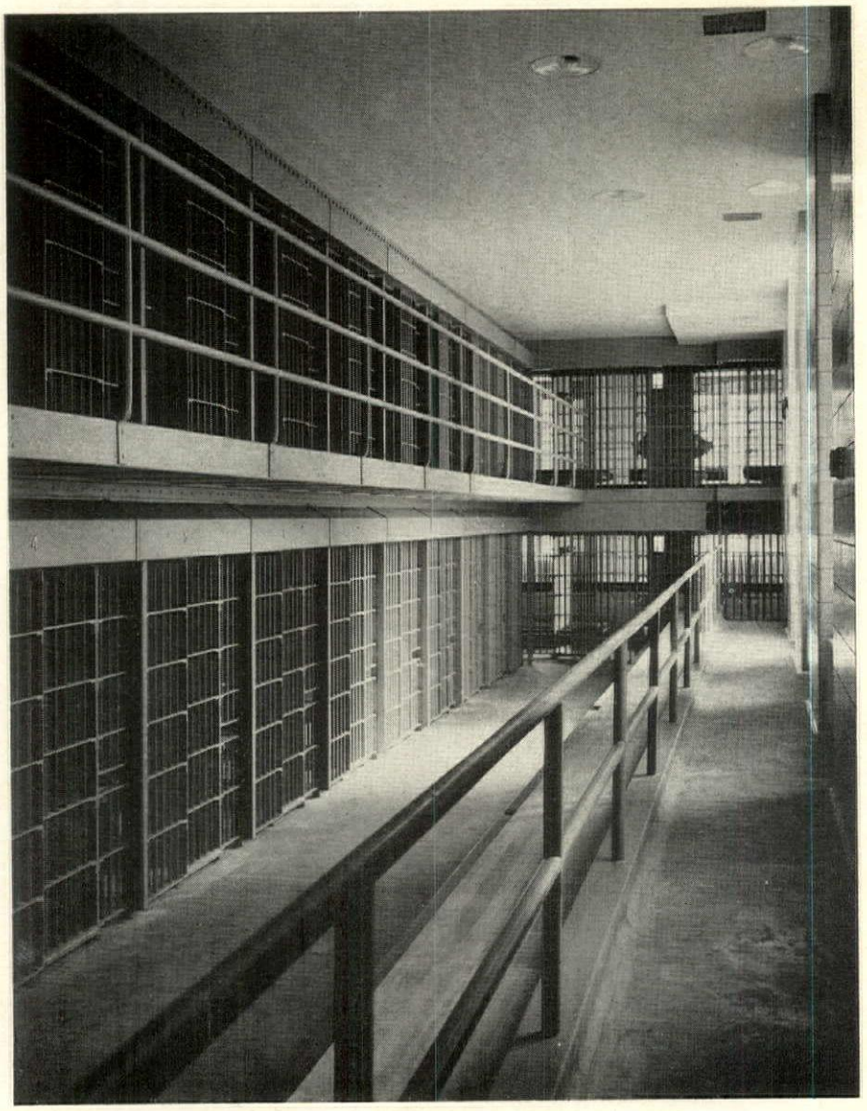
BOILER ROOM

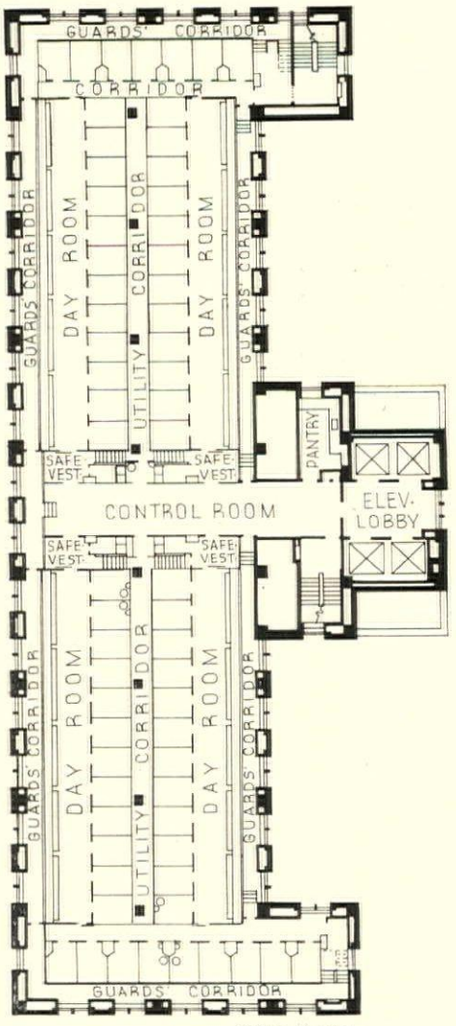


CRIMINAL COURTS BUILDING AND CITY PRISON

NEW YORK CITY

HARVEY WILEY CORBETT AND CHARLES B. MEYERS, ASSOCIATE ARCHITECTS





LOWER TIER
TYPICAL CELL FLOOR
PRISON BUILDING

GENERAL CONTRACTOR, CAULDWELL-WINGATE CO.

CONSTRUCTION OUTLINE

FOUNDATION: Steel piling and caissons; remainder—reenforced concrete.

STRUCTURE: Steel, granite and Indiana limestone facing, brick backing. Partitions—clay tile, cinder block or gypsum block. Glazed terra cotta, Federal Seaboard Terra Cotta Corp., ceramic clay blocks, National Fireproofing Co. Hollow metal partitions—Jamestown Metal Co. Floors—reenforced concrete.

ROOFS: Concrete slab and Traffic Top, Celotex Corp. Quarry Tile.

INSULATION: Johns-Manville.

SHEET METAL WORK: Flashing—copper. Ducts—galvanized iron.

WINDOWS: Sash—bronze and aluminum casements, General Bronze Corp. Aluminum Spandrels — Flour City Ornamental Iron Works. Glass—Pittsburgh Plate Glass Co. Glass blocks — Pittsburgh - Corning Corp. Steel grids—Detroit Steel Products Co. Caulking—X-Pando Pointing Mortar.

STAIRS AND ELEVATORS: Stairs—steel, Wander Iron Works. Elevator—Otis Elevator.

FLOOR COVERINGS: Marble terrazzo, V. Foscato, Inc. Tile—Armstrong Cork Co. and Mosaic Tile Co. Linoleum—Sloane & Blabon.

WALL COVERINGS: Oak paneling — Gillen Woodwork Corp. Tile—Mosaic Tile Co. Murals—Griffith Bailey Coale and Arthur Crisp. Sculpture—Rene Chambellan.

METAL CABINETS AND DOORS: Jamestown Metal Corp.

PAINTS: M. J. Merkin Paint Co.

HARDWARE: Sargent & Co.

ELECTRICAL INSTALLATION: National Electric Products Co. and Auth Electric Specialties Co. Fixtures—McPhilben Mfg. Co., Kliegl Bros. and Beaux Arts Lighting Co. Clocks—Electric Time Co., Acme Fire Alarm Co. and Howard Clock Co. Switchboards and panels—Lexington Electric Products Co.

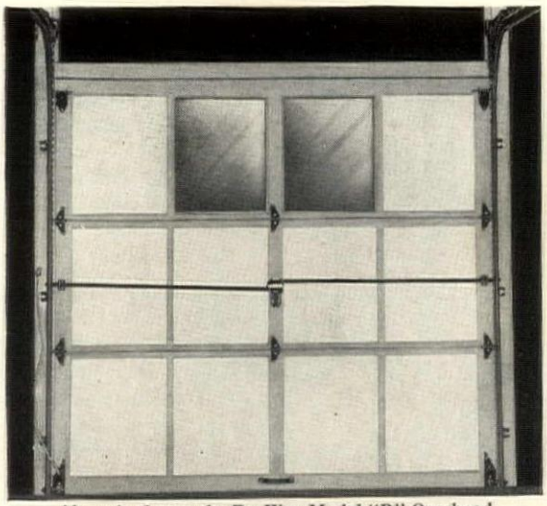
KITCHEN EQUIPMENT: Ranges — Magic Chef, American Store Co. Refrigerators — Westinghouse Electric Co.; insulation—Armstrong Cork Co. Sinks, etc.—P. B. Polhemus Co. Dishwashers—H. P. Hobart & Autosan Co. Equipment—Aluminum Cooking Utensil Co.

LAUNDRY EQUIPMENT: American Laundry Machinery Co.

PLUMBING: Pipes—A. M. Byers Co., Central Foundry Co., Bridgeport Brass Co., American Tube Works and Bethlehem Steel Corp. Pumping equipment—Dayton-Dowd Co. Fixtures—Kohler Co. Accessories—C. F. Hubbs Co. and Chas. Parker Co. Fittings—N. Y. Brass Foundry Co., Crane Co., Grinnell Co., Josam Mfg. Co. Valves—Sloane Co., Speakman Co., Leonard Rooke Co., Kennedy Valve Mfg. Co. Water heaters—Paterson-Kelley Co., Inc. Tanks—Quaker City Iron Works. Chilled drinking water system — General Electric Co. Compressors—American Air Compressor Co. Meters—Worthington-Gamon Meter Co.

HEATING AND AIR CONDITIONING: Steam system. Air conditioning units—John J. Nesbit Co. Boilers—Henry Vogt Machinery Co. Grilles—Tuttle & Bailey. Regulators—Powers Regulator Co. Water heater—Hopper Mfg. Co. Radiators—American Radiator Co. Oil burners—Todd Combustion Engineering Co. Valves—Jenkins Bros. Inc. Pipe—Chase Brass & Copper Co. and National Tube Co. Motors—Electro Dynamic Works.

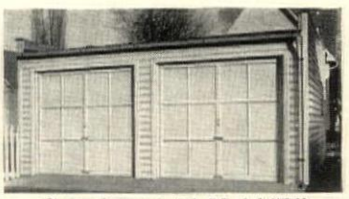
SPECIAL EQUIPMENT: Incinerator — Morse-Boulger. Jail cell work—Stewart Iron Works. Disinfector and sterilizers—Hospital Supply Co. Dental unit—S. S. White Co.



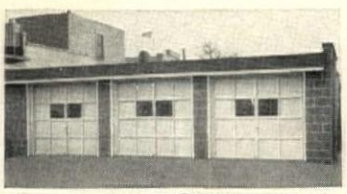
Above is shown the Ro-Way Model "R" Overhead Type Door of 3-section type with 2 glass panels. This model is made in either 3 or 4 sections, and in only two sizes—8 ft. x 6 ft. 6 in. and 8 ft. x 7 ft.



Attached Garage with Ro-Way Model "R-4" Door.



2-car Garage with Model "R" Ro-Way Doors.



3-car apartment Garage equipped with Ro-Way Model "R-4" Doors.



Full wood paneled Model "R-4" Ro-Way Door.

Here's the OVERHEAD TYPE DOOR

THAT MEETS TODAY'S DEMAND FOR

Quality at Low Cost!

Rō-Way MODEL "R" OVERHEAD TYPE

First—Note this is a true Sectional Overhead Type Door, with ball bearing rollers and track. Easy to operate and when open provides full drive-in clearance.

Manufactured in quantities of hundreds at a time and packaged in warehouse ready for shipment, these Ro-Way Model "R" Overhead Type Garage Doors are priced to give the utmost value per dollar.

They are completely made in the Ro-Way Factory — even to Hardware, Streamlined Hinges, Double thick Rollers, Friction-reducing Tracking, Sheave Wheels, Springs and Locks.

Model "R" requires 13½" Headroom
Model "RL" requires 9" Headroom

Both Models are made in only two standard sizes—8' x 6' 6", and 8' x 7'. Regularly supplied with 3 sections as illustrated, but also available with 4 sections. Have 2 center panels open for glass, or may be had without glass panels.

Write for 72-page "Time-saving Specification Book."

ROWE MANUFACTURING CO.
943 Holton Street **Galesburg, Illinois, U. S. A.**

NOTE THESE SIX EXTRA VALUES!

1. **Track Rollers** made on our own specially-designed machines. All Rollers have "double thick" wearing tread, and full ball bearing (7 to each roller).
2. **New Friction-Reducing Track.** Track is formed so rollers ride well away from the track side wall, giving extra clearance and easier operation. This track design also gives extra strength and rigidity. No counter-sunk holes in track—no flat head stove bolts used.
3. **Extra Bearing Support.** The load sheave wheel of this Ro-Way Door is reinforced with an inner bearing support. No opportunity for side pull or twist. Insures long life of smooth, easy operation.
4. **Rust-proof Hardware.** All Parkerized and Painted *after* fabrication.
5. **Streamlined Appearance.** Stiles and rails are of the modern streamlined type. Hinges are streamlined and of rigid anchor type.
6. **Time-Saving Installation.** Complete pictorial instructions sent with each Door enable any capable carpenter-mechanic to install in 2 or 3 hours.

ROWE MANUFACTURING CO.,
943 Holton St., Galesburg, Ill.
Gentlemen: Please send me Free copy of your 72-page "Time-saving Specification Book" for Architects, as advertised in Architectural Forum.

Name .....
Address .....
City ..... State .....

There's a Ro-Way for every Door way!



Paint is all-important in the WAR ON WASTE!



Designed and built by Stackhouse, Inc.

Save . . . save . . . save! That's a vital watchword these days.

And it demands that houses now be painted with greater care than ever before. Every extra year of service a paint can give conserves both materials and man power.

No wonder the demand for Eagle White Lead is heavy. The paint made with Eagle White Lead has demonstrated exceptional wearing qualities. Its film is tough and elastic. Weathering does not cause cracking and scaling. And because it wears slowly and evenly, it leaves a perfect surface for repainting when repainting finally becomes necessary.

Eagle White Lead has been protecting and beautifying American homes, through war and peace, since 1843.



THE EAGLE-PICHER LEAD COMPANY
Cincinnati, Ohio
Member of the Lead Industries Association

MONTH IN BUILDING

(Continued from page 198)

ment was far short of the actual needs of the nation. Of this total, the huge sum of $3,900,000,000—about 1/3 — represented non-defense and non-essential construction.

"The estimated value of construction programmed for the calendar year 1942 amounts to $14,450,000,000. Two months of the current year have gone. How do we stand now? The news from the construction battleline is not very encouraging. The report indicates that it is less than fifty per cent of the set schedule. In January, 1942, we executed approximately $500,000,000 whereas the program calls for well over a billion dollars a month. The record for February is no less bright. It amounted to $520,000,000. The estimate for March is $580,000,000. There are some optimists who think we can reach $610,000,000 in April. Let us hope so.

"It is true that miracles have been performed by individuals and on individual projects. Men have sweated through days and nights over the draughting boards and in the field to accomplish what often seemed to be the impossible. But that is not what I am talking about tonight. General MacArthur's historic and incredibly heroic performance at the front in the Philippines is not the campaign in the South Eastern Pacific. These miracle jobs are not the whole war construction program, and I am talking about the program. . . ." Continued Jones, "The industry's failure is due to the fact that it is not organized to do a job. Not being organized it has never been properly represented in Washington. By reason of its failure to be adequately represented, to have its fingers on the pulse and its ears to the ground, it has lost its first round by default to a lot of selfish individuals who knew exactly what they wanted, came to Washington and got it. These individuals assumed obligations which they could not meet. Being greedy they did not try to share their work with other members of the industry. And who is suffering from the consequences? The war program, of course. And who gets the blame? The construction industry as a whole. The innocent ones cry it is unfair. Of course it is unfair. But whose fault is it? There being no effective organization, there is no one to stop this sorry spectacle, no one to protect the good name of the industry and uphold its shining tradition. . . . "

His remedies: "1) The industry should immediately undertake a thorough and complete mobilization of its resources in: a. machinery and equipment; b. professional personnel and technicians; c. skilled workers; d. materials; 2) next, the industry should work out a plan to expedite construction of war projects; to effectuate economies in the use of critical materials, even in the war-essential con-

(Continued on page 40)



Brasco MODERN STORE FRONTS

● Your modern store front designs, regardless of what they may call for in store front construction, are interpreted most easily and faithfully in the broad line of Brasco members.

Straight runs and returns, curved members at the entrance, canopy mouldings, awning bars, doors and grilles and every other essential element that may enter into your conception of a modern store front, is available in harmonious, unified design.

You can select Brasco with all the confidence in the world that out of your blue prints, will come true and brilliant reality. Your store front will be of permanent beauty, dependable glass safety, rugged strength — a lasting tribute to your good judgment.

Brasco Distributors still have stocks available in stainless steel or bronze or aluminum, for prompt installation.

FIT YOUR PLANS *perfectly*

30 Years of Experience
Do Make a Difference.

BRASCO MANUFACTURING CO.
HARVEY (Suburb of Chicago) — ILLINOIS
National Distribution Assures Effective Installation

BRASCO MFG. CO., Harvey, Ill.

Send Information and Folder of New Details of Brasco Modern Store Front Construction.

Firm.....

Address.....

Individual.....

AF442





MEET THIS DEMAND BY SPECIFYING "KINNEAR"!

You can speed up traffic, step up efficiency, and save labor-time for war production plants by specifying Kinnear Motor Operated Rolling Doors. They can be opened and closed at the touch of a button — from any number of convenient points. They also save valuable floor and wall space because they open upward, coiling compactly above the lintel. Their rugged interlocking-slat construction assures long service with low maintenance and protects against fire, intrusion, sabotage, wind, weather and accidental damage. Built any size for any doorway. Write for details or recommendations, or see Sweet's. The Kinnear Manufacturing Company, 1640-60 Fields Avenue, Columbus, Ohio.

KINNEAR
ROLLING DOORS

MONTH IN BUILDING

(Continued from page 38)

struction projects, and do it in the shortest possible time. 3) Members of the industry should pledge themselves to undertake no non-war jobs. The war task is big enough, is embracing enough to consume all of its resources properly mobilized. 4) Set up machinery for self-regulation. 5) Last October the Government requested that municipal and other authorities suspend for the duration of the war those provisions of their codes calling for the excessive use of critical materials. Chicago is out in front and has set an example for other municipalities in its response to this call for conservation. 6) The Government has also requested that municipal, state and federal agencies refrain from issuing construction permits for work on which priorities would have to be denied. See that it is carried out. It will save us much work and confusion in Washington. . . .

"You must have, and the Government must have, an Advisory Committee representative of the whole industry. We have had enough of pressure groups, of cliques, of self-appointed leaders of Committees, hand-picked to support a policy or procedure. A truly representative committee, enjoying the confidence of both the industry and the Government, can render an invaluable service to the country now and after the war, as well as to the industry itself. . . . A committee in Washington, with such enlightened leadership, reflecting the united will and determination of this great industry to do the job regardless of sacrifice, can win the plaudits of a grateful nation."

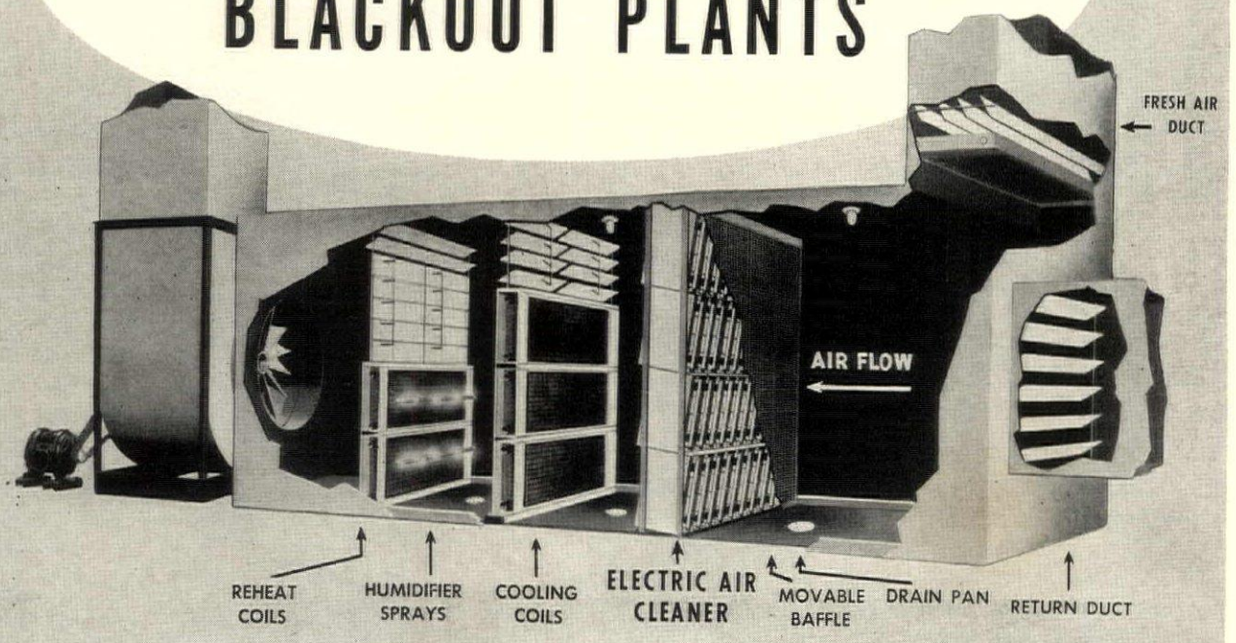
Jones' speech produced reactions mixed all the way from tumultuous approval to bitter indignation and a wordy resolution implementing the Jones proposal for an industry-wide committee. That Mr. Jones' findings were not without merit was clear to many who have long advocated integration of the industry. That the Jones' figures were fully convincing seemed less clear, and that the construction industry is alone to blame for whatever failure exists seemed very far-fetched indeed. That the construction business is as indifferently prepared as agriculture to move unitedly on a single front is obvious. But united or not, few believe the industry can get into all-out production until Washington clears the air of rumors, conflicting orders and a lack of policy, which shows at its worst in the housing program. No less at fault than any other agency is Mr. Jones' OPM which to date has failed to compose the conflicting opinions that create confusion and prevent well-intentioned building men from knowing what to expect today, tomorrow and the day after. Let Washington realize that it cannot talk about stop-orders one minute and doubling production the next;

(Continued on page 42)

ELECTRIC AIR CLEANING

SAFEGUARDS WAR PRODUCTION IN

BLACKOUT PLANTS



Here's a cutaway view of a typical air duct showing a bank of PRECIPITRON dirt collector cells as the cleaning component of an air conditioning system.

One of our essential wartime jobs is supplying clean circulating air for machines, men and materials in America's windowless blackout plants. We're doing it with PRECIPITRON*—the Westinghouse air cleaner that operates by electricity.

PRECIPITRON, used simply as an air cleaner or as the cleaning component of an air conditioning system, removes 90% of all air-borne particles as small as 1/250,000 of an inch in diameter. Because of this unmatched efficiency, PRECIPITRON clears away harmful industrial haze, welding fumes, abrasive and corrosive dusts and smoke. It reduces heating or cooling costs by permitting the maximum possible use of recirculating air.

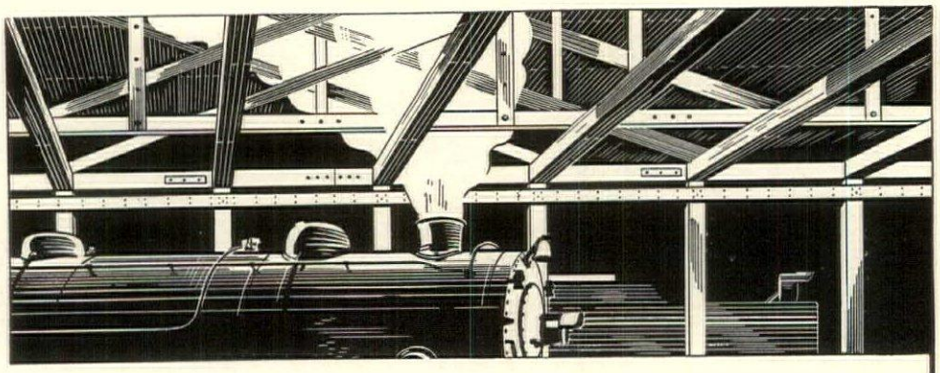
The principle of PRECIPITRON is entirely different from that of an ordinary air filter. Damaging particles in the air stream are given an electric charge and then drawn off to oppositely charged plates. There are no moving parts, and, since there are no filters to become clogged, resistance to air flow is negligible. PRECIPITRON has been tested for fire and electric shock hazards and is listed by the Underwriters' Laboratories.

To protect and speed the flow of war materials is the single-purpose job assigned to PRECIPITRON. We will be glad to give you full information on its many applications in war production. Just write Westinghouse Electric & Mfg. Co., Edgewater Park, Cleveland, O., for our new war industries folder, B-3083.

*Trade-mark registered in U.S.A.

Westinghouse

Precipitron



Service Records Like This Proved the Worth of Wood

AN ENGINE HOUSE is a trouble-maker for all building materials. Metals are attacked by corrosive stack gases. Ordinary wood soon succumbs to decay hastened by high humidities. Wolmanized Lumber* has proved to be a solution to these problems in roof trusses and decks, window sash and sills.

WOOD IS NATURALLY resistant to corrosion, so its use eliminates that worry. Wolmanizing the wood—vacuum-pressure impregnation with Wolman Salts* preservative—goes a step farther. It gives ordinary wood the ability to withstand decay and termite attack.

FOLLOW THE LEAD of the railroads. They have found in Wolmanized Lumber a means of lengthening the life of their wood structures and reducing maintenance costs. Its use introduces no unusual problems, because Wolmanized Lumber is handled like ordinary lumber. It does not increase the fire hazard.

WOLMANIZED LUMBER gives you all of the usual advantages of wood construction; ease of handling and erection, lightness, strength, resilience and low cost. It is clean, odorless and paintable. "Fibre fixation" prevents washing-out or leaching of the preservative. American Lumber & Treating Company, 1647 McCormick Building, Chicago, Illinois.

*Registered Trade Mark

WOLMANIZED LUMBER

WOLMANIZED CERTIFIED PROTECTED AGAINST DECAY & TERMITES A.L.&T. CO.

MONTH IN BUILDING

(Continued from page 40)

about gas shortages one day and restrictions on oil the next; about rental housing in one breath and no profits the next; about critical steel one moment and plywood shortages the next; about prefabrication on Monday and demountability on Tuesday; about refrigerators at 11 o'clock and no refrigerators at 12 o'clock; about private builders in one breath and Government building everything in the next.

But the fact remains that construction, unlike many another industry, has not organized locally, has not taken the initiative in presenting Washington with cleanly wrapped packages of its local production possibilities. Clearly what is needed is a pooling of all local building interests followed by a willingness to forget personal and competitive prejudices for the duration. If the Jones indictment of the industry is justified, so too is the industry's indictment of Mr. Jones and his Washington cohorts. What the war effort needs is less namecalling, a clearer set of directives from Washington and rational collaboration between all those who have a hand in building *in every local community*.

STOP—GO—STOP ORDER

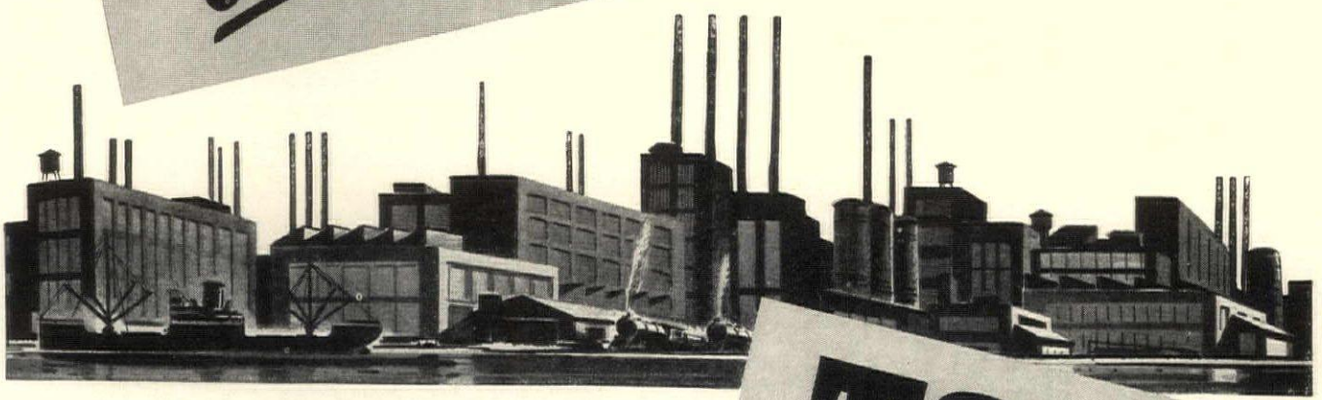
Rumored so long and so often, the stop order placing all building under permit and eliminating virtually all non-war construction will probably be fact before these lines appear. Good guess is that some nominal figure, perhaps $500 or $1,000, may be allowed for remodeling and renovating houses without requiring a permit. Almost certainly special recognition will be made for farm houses. There is also talk of a $25,000 exception for non-domestic buildings but such a figure would offer many loopholes and may not appear in the final regulations. Only other exception may be permission to complete work already under way. Even the best intentioned people do not realize how critical is the situation on critical materials. Those who do feel that the stop-order is long overdue.

RENT CONTROL

Zooming rents in defense areas produced a reluctant Federal echo on March 2d with the issuance by Price Administrator Leon Henderson of rent control regulations authorized by the Emergency Price Control Act. This long threatened step currently applies to only 20 widely scattered communities but presages what is to come, as does the elevation of the rent control section to a full-fledged division in charge of Paul A. Porter, who will be assisted by Carl Borders, heretofore head of the section. It is known that Borders has been making a study of hundreds of

(Continued on page 44)

UNFAILING POWER for UNINTERRUPTED PRODUCTION



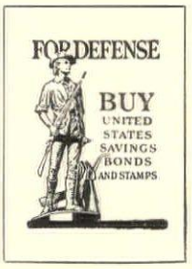
TODD COMBUSTION UNITS

• Is your power plant geared to the all-out war effort . . . the demands of the new 168-hour week?

ALL-OUT, America! The task is huge . . . the time short! To produce the staggering quotas now called for, your power plant must operate *without interruption*—at *top capacity*—and with *maximum efficiency!*

In plants of every type throughout the country, Todd installations, specially engineered to meet individual problems in the firing of liquid and gaseous fuels, are hitting new highs in efficient power production—under gruelling conditions. Todd technical-service staffs assure smooth, trouble-free operating performance . . . are instantly available in any emergency with parts and replacements from complete stocks in convenient key cities.

Whatever the size of your plant, Todd engineers will gladly confer with you on your combustion problems.



TODD COMBUSTION EQUIPMENT, INC.

(Division of Todd Shipyards Corporation)

601 West 26th Street, New York City

TODD NEW YORK, U.S.A.

NEW YORK MOBILE NEW ORLEANS GALVESTON SEATTLE BUENOS AIRES LONDON

HOW TO GIVE *Glamour* TO A $6,000 HOUSE



CALL IT GLAMOUR, sparkle, sales-appeal—call it anything you like—*the houses that have it are the houses people buy first.* And you can put that extra "something" into every house you build, no matter how small the budget. It's easy . . . with Armstrong's Linoleum.

This modern flooring is colorful. It gives a whole room—a whole house—extra life and smartness. It carries the prestige of a floor for fine homes, yet it's practical for the most modest-priced houses.

You'll find this modern flooring available in a wide range of patterns, and in colors to match any scheme. And because it is so versatile, so easy to work with, Armstrong's Linoleum is a truly important decorating material today.

Next time you choose a floor—whether it's for new construction or a remodeling job—consider the extra advantage of Armstrong's Linoleum. Meanwhile, write for your free copy of our color-illustrated booklet that tells the whole story on this famous flooring material. Armstrong Cork Company, Floor Division 1203 State Street, Lancaster, Pennsylvania.



IN THIS KITCHEN *a field of Marbelle Linoleum has been used with special insets, border and cove base of contrasting colors in plain linoleum. The walls are Armstrong's Linowall accented with a Linostrip.*

ARMSTRONG'S LINOLEUM

MADE BY THE MAKERS OF ARMSTRONG'S LINOWALL AND RESILIENT TILE FLOORS

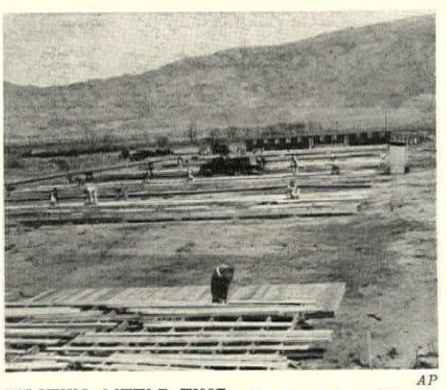
MONTH IN BUILDING

(Continued from page 42)

communities which have deluged Washington with charges of rent abuses. Procedure is simple. A fair rent date is determined for each community following which landlords are permitted sixty days in which they can adjust to the prescribed level. Failure to do so exposes the offender to a $5000 fine or a 2-year jail sentence. Recognition of increased building costs is provided by giving the Rent Control Administration discretion in authorizing exceptions in the case of recently built structures. Pressure has likewise made itself felt in many State capitols. New York and Virginia are among the States which are likely to enact state-wide rent control measures immediately, making it possible to move in advance of Federal action. Thus, once again the long shadow of elder statesman Bernard M. Baruch takes form in the war program. It was Baruch who months ago advocated control of rents, commodity prices and wages as a necessary emergency move in an all-out war program.

RISING SONS SET OVER THE MOUNTAINS

A few weeks ago Lieutenant General John L. DeWitt, Western Defense Commander, counted yellow heads, found his district harbored 111,171 Japanese. In his forthright army way he decided to move these potential troublemakers back of the mountains. Uninhibited by daily contact with the technical problems and ideological concepts which beset ordinary housers, the General picked up a 'phone, told a Second Lieutenant to get enough housing up on a 6020 acre tract in Owens River Valley to accommodate the first batch of new Government guests. Week later the first barracks were under roof and many another soon will be. The project, to be completed in 60 days, will include an Administration Building and a 150-bed hospital. An advance contingent of Japanese carpenters, plumbers, painters and electricians will help "roll their own." if AFL permits.



AP

WASTING LITTLE TIME, the Army rushes to house more than 100,000 Jap and Nisei evacuees from sabotage-inviting West Coast areas.



ANOTHER FIRST FOR CARRIER...THE NAVY "E"

The men and management of Carrier deeply appreciate the Navy's reward for the work we've been doing for defense. We're human enough to feel proud that Carrier is first in the air conditioning industry to earn the Navy "E".

In the submarine, life depends on huge storage batteries preserved by Carrier Air Conditioning. On board many Liberty Fleet ships, ship's food is like home food, thanks to Carrier Refrigeration.

In the sky and on land, Carrier is earning its letter, too. Instruments and bombsights of unmatched accuracy... motors that climb higher, fly faster, stay in action longer . . . and a thousand more triumphs of American industry depend on Carrier developments . . . on the microscopic accuracy made possible by controlling temperature, humidity, and circulation of air.

Today, air conditioning is a mighty weapon. Tomorrow, it will be an even more potent force in building a world of greater abundance for everyone.

Architects Pace The Victory Drive

Across the continent, architects are drawing plans to help speed industrial production. In much of this new, modernizing construction, air conditioning is being incorporated to control essential manufacturing processes.

The value of Carrier Air Conditioning and Refrigeration in America's victory drive is shown by its priority ratings in today's war-time construction.

Typical examples are: the "dry-blast" furnaces—one stepped up steel production an extra 27%; the air conditioned black-out plants where even temperature, correct humidity and freedom from dust are essential to fast precision machining; the telephone, gunnery, and other military nerve centers which must be guarded against gas attack; the parachute, food and plywood storage spaces which must provide protection against deterioration.

Carrier with its 40 years of air conditioning development offers the cooperation of its engineers and dealers. We offer our experience in serving Army, Navy and war industries with Carrier Air Conditioning, Refrigeration and Heating. You will find complete Carrier data in your Sweets Catalogue, cover shown here.



Carrier Air Conditioning



The Navy "E", one of the U. S. Navy's most coveted honors, has been awarded to Carrier Corporation for excellence in war production.

Carrier Corporation, Syracuse, New York

WEATHERMAKERS TO THE WORLD



NOW DARK, low visibility colors can be used for the protective concealment of America's vital storage tanks. Based on a new principle, Arco INFRAY,* although dark in color, repels heat rays and holds down evaporation losses to a degree heretofore associated only with white, aluminum and other high visibility colors. INFRAY* is the latest achievement of Arco research.

Patents Applied For

THE ARCO COMPANY

CLEVELAND, OHIO
LOS ANGELES, CAL.



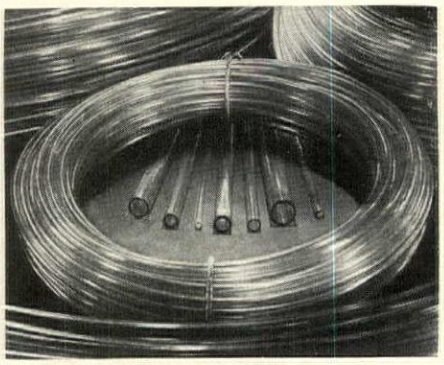
ARCO

Paints for Industry

Building Reporter

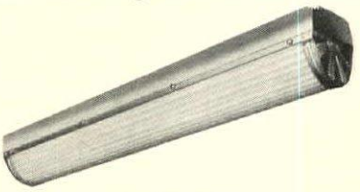
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PLASTIC TUBING, pinch-hitting for unobtainable copper tubing, features flexibility.



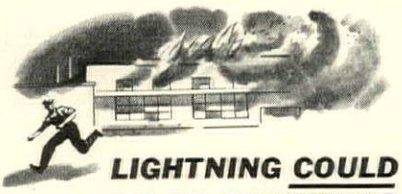
Name: Transparent Tenite Tubing.
Purpose: For use in electrical insulation, water lines, other applications where temperatures do not go above 140° or much below freezing.
Features: Announced as available for immediate delivery in diameters ranging from 3/16 to ¾ in. and in almost any length, this seamless plastic tubing, extruded from a cellulose acetate butyrate formula, offers several advantages not found in other types of tubing. It is virtually unbreakable, can be readily bent, formed, or curved to fit almost any condition. Ends may be flared for standard fittings with the same tools used for copper tubing. Larger diameters can be threaded with standard thread-cutting tools. One-inch diameter tubing is expected to be available for delivery shortly.
Manufacturer: Extruded Plastics, Inc., Norwalk, Conn.
Distributor: Julius Blum & Co., 532 West 22 St., New York, N. Y.

FLUORESCENT LUMINAIRE. Fluted glass section boasts high transmission qualities.



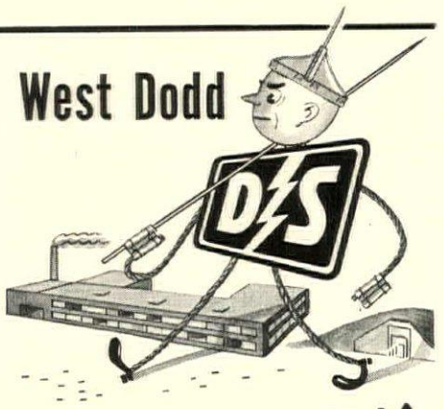
Name: Luminaire CL-110.
Purpose: For direct or semi-direct illumination of stores, offices, other commercial applications.
Features: Three types are available: 1) continuous row ceiling or surface mounted; 2) individual ceiling or surface mounted; 3) suspension mounted units. Constructed of steel, fixture body is shaped with decorative die-cast ends. The glass, although translucent, possesses sufficient

(Continued on page 48)



LIGHTNING COULD BE AS COSTLY AS SABOTAGE, SO—

West Dodd



STANDS ON GUARD!

WEST DODD Lightning Protection and static control equipment is standing guard over many plants vital to the nation's war effort, providing protection against something that could be as costly as sabotage. Over ammunition loading lines, over powder igloos and on shell loading plants. Over power stacks, and often the factories, where fighting tools are being forged.

Many items of West Dodd materials have been specially designed to meet U. S. Government specifications and requirements. Inspected and labeled in the plant by Underwriters' Laboratories. Approved by American Institute of Electrical Engineers.

Prompt delivery and complete cooperation on the job have earned for West Dodd commendations like that of W. W. Clark, President of The Dingle-Clark Company, contracting engineers of Cleveland, who writes: "—I really feel that we, as a company, performed a real service to the country in the operations we carried on at ——— Arsenal. Your cooperation with us played an important part in our ability to furnish vital parts of this job on time..."

WEST DODD
LIGHTNING CONDUCTOR CORP.

A RELIABLE PROTECTION AGAINST A LEADING CAUSE OF FIRE

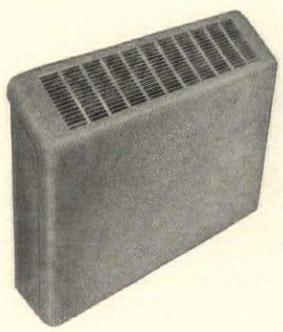
D/S

GOSHEN, INDIANA

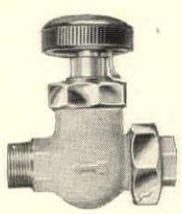
FREE The West Dodd Engineering Department will be glad to assist in planning the application, or estimating costs.



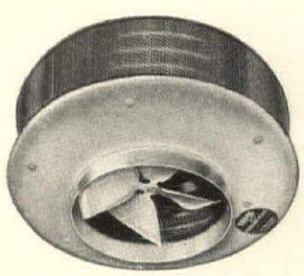
TRANE IS ON ACTIVE DUTY IN THE TRAINING CAMPS



TRANE SLOPING TOP CONVECTORS
The sloping top feature of this Convector is especially adaptable where it is desirable to prevent the Convector from being used as a seat or shelf. Wide selection of sizes in this and other Trane Convector models.



TRANE HERMETIC VALVES
The simplest valve of its type. Truly packless and leak-proof. Easily operated. Ideal for service on Convectors, radiators, and other heating equipment used on two-pipe steam vapor or vacuum heating systems.



TRANE PROJECTION UNIT HEATERS
Ideal for large areas—shops, hangars, etc.—Trane Projection Unit Heaters are widely used in military, naval, and industrial construction. Trane also manufactures a complete range of Propeller and Blower Type Unit Heaters.

TRANE "keeps 'em comfortable" in army training quarters. In the array of buildings found at any army center—at Fort Benning, Fort Lewis, Fort George Meade, Camp Barkeley, Camp Holabird, and the many other major army bases throughout the country—you will find Trane Heating, Cooling, and Air Conditioning equipment exactly meeting the specific requirements of the individual buildings.

How Trane Serves

Trane Convectors are helping hospitals maintain cleanliness. Trane Coils are providing the correct air conditions to camp theatres. Trane Unit Heaters and Steam Heating Specialties are making barracks more comfortable. Trane Projection Unit Heaters are diffusing warmth in chapels. Other Trane products for specialized applications are used where correct temperature and humidity conditions are desired. Even the moth proofing room is served at one base.

How many applications are there for Trane equipment in an army camp? Count the number of buildings in any one of them, and you have the answer!

What Is Your Problem?

Trane is geared for the war program, and the Trane representative near you is ready to show you how Trane equipment fits into your own construction picture—industrial, military, or naval.

TRANE

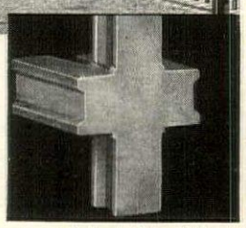
THE TRANE COMPANY, LA CROSSE, WISCONSIN · *Also* TRANE COMPANY OF CANADA, LTD., TORONTO, ONTARIO

MANUFACTURERS OF HEATING · COOLING · AIR-CONDITIONING EQUIPMENT · 85 BRANCH OFFICES

LOOK HERE·· FOR THE SECRET OF IRON FENCE SUPERIORITY



This Type of Welded Joint is Stronger



Grooved steel pickets and rails of equal thickness are forced together under heavy pressure and electrically welded at 8 points. Results in a permanent union of great strength and rigidity.

When you specify Iron Picket Fence, include these two important features in your specifications. For they are two specifications that assure a fence which will last for ages, with little or no maintenance cost.

1. *Inseparably Welded Joints between Rails and Pickets.*
2. *Carrying Rails must be the same thickness as the Pickets.*

A fence so built does not need ugly cross braces for gates. Nor does it need center supports for its panels. Each panel so constructed will support a distributed load of one ton without showing permanent set. Anchor-Weld Iron Picket Fences meet these specifications. Mail the Coupon below for Catalog and Sample Anchor-Weld (a nice paper weight). No obligation, of course.

NATION-WIDE SALES AND ERECTING SERVICE

1892-1942 FIFTY YEARS OF SERVICE

ANCHOR FENCE

ARCHITECTS *Mail this Now!*

ANCHOR POST FENCE CO.
6635 Eastern Ave., Baltimore, Md.

Please send me ( ) Anchor-Weld Iron Fence Manual. ( ) Anchor-Weld Sample Weld. ( ) Name of nearest Anchor Fence Engineer.

Name .....

Address .....

City ..... *State* .....

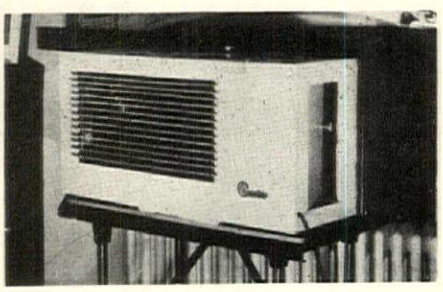
Building Reporter

(Continued from page 46)

opacity to conceal the luminaire's functional parts. Lamp starter is equipped with a condenser to minimize radio interference. Units are completely wired, except for line leads, which are furnished for line connections in the suspension types. All exposed metal parts are finished with a baked-on silvery-gray enamel and clear top coating for suspension units, baked-on white enamel for surface mounting units.

Manufacturer: Westinghouse Electric & Mfg. Co., Lighting Div., 1216 West 58 St., Cleveland, O.

BLACKOUT VENTILATOR is designed to become a window type room cooler after the duration.



Name: Blackout Pleasantaire.

Purpose: To ventilate offices and residential rooms.

Features: This unit is more than a ventilating device. Its cabinet is also designed to house cooling equipment when materials for such manufacture again become available. At present, however, it simply brings in fresh outside air, filters it through oil-treated spun glass, and exhausts stale room air simultaneously, if desired. Powered by a ½ h.p. motor, it is easily installed in the window. Plywood wings fill in extra window space on either side. Dimensions: 28 in. wide, 14½ in. deep. Finish: a simulated leather.

Manufacturer: Pleasantaire Corp., Tower Bldg., Washington, D. C.

PLASTIC CORK COATING stops condensation drip, can be applied with a paint brush.

Name: NoDrip.

Purpose: To prevent condensation or "sweating" on pipes, walls, ceilings, tanks, and the like.

Features: Previously restricted to large surface areas because it required power spray equipment for application, this plastic cork coating is now offered in a form that permits the use of an ordinary paint brush. It spreads ¼ in. thick over metal, concrete, brick, plaster, tile, wood

(Continued on page 52)

VAN for VICTORY

COMPLETE, DECISIVE, OVERWHELMING

VICTORY!

With humble pride we find our organization completely absorbed into the National Defense. Every man, every machine and every pound of essential material for new construction are allocated to some work of vital necessity to the United States in its supreme struggle. This condition will continue until the war is won, however long it may last and however much it may cost.

Defense Has Priority On

John Van Range

Food Service Equipment

Architects who are planning defense housing, essential industrial plants, hospitals and other buildings requiring facilities for the preparation and serving of food to the armed forces and to civilian workers are invited to avail themselves of our kitchen engineering service.

In this emergency we are very mindful that our present ability to be of assistance to the Government is due, in large degree, to the great volume of business with which the architectural profession has favored us in the past. We hope to be equally favored when the emergency is over.

•

The John Van Range Co.

EQUIPMENT FOR THE PREPARATION AND SERVING OF FOOD

Branches in Principal Cities

328 EGGLESTON AVE., CINCINNATI, O.

TILE-TEX MEANS "ALL OUT" FLOOR PERFORMANCE

★ ★ ★

Our constant objective is to furnish the architect with an honest, steadily improved product that will enable him to design architecturally correct floors which can be installed and maintained properly at minimum cost.

★ Results are what count in industrial plants today. Clean-cut all-out performance is imperative. That's why Tile-Tex floors are used so frequently for factory offices, laboratories, locker rooms, and other auxiliary areas.

Tile-Tex, made of long-wearing asphalt and asbestos, can take it. It is easily and quickly installed by competent, approved contractors. It costs little to install and less to maintain; and its 64 colors and 15 sizes make possible a great variety of attractive floor designs.

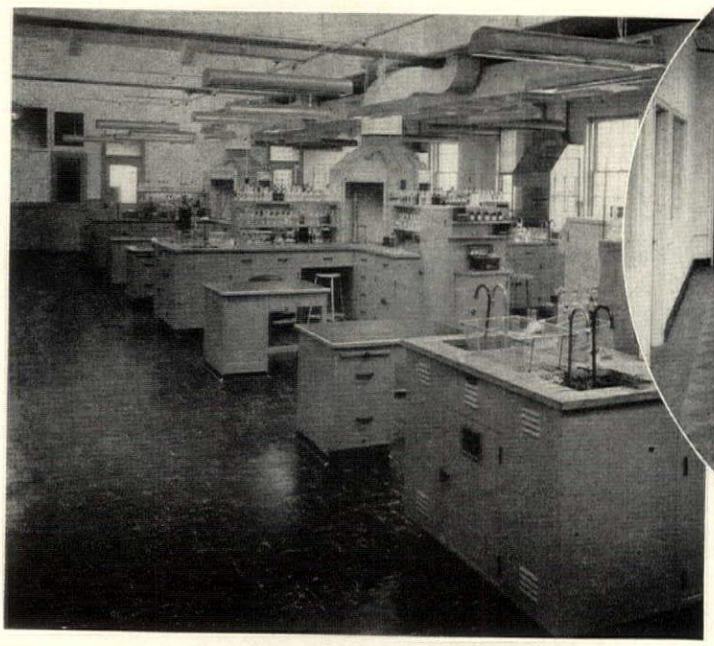
Draft Tile-Tex into your specifications. It contains no critical materials—and is available promptly without unnecessary shipping delays. For specification data, see Sweet's Catalog File, page 11/58, or write us.



Reception Room: Industrial Type Co., New Brunswick, N. J.

The TILE-TEX Company

101 PARK AVENUE, NEW YORK • CHICAGO HEIGHTS, ILL.



Laboratory: Merck Co., Rahway, N. J.



General Office: Flako Products Co., Milltown, N. J.

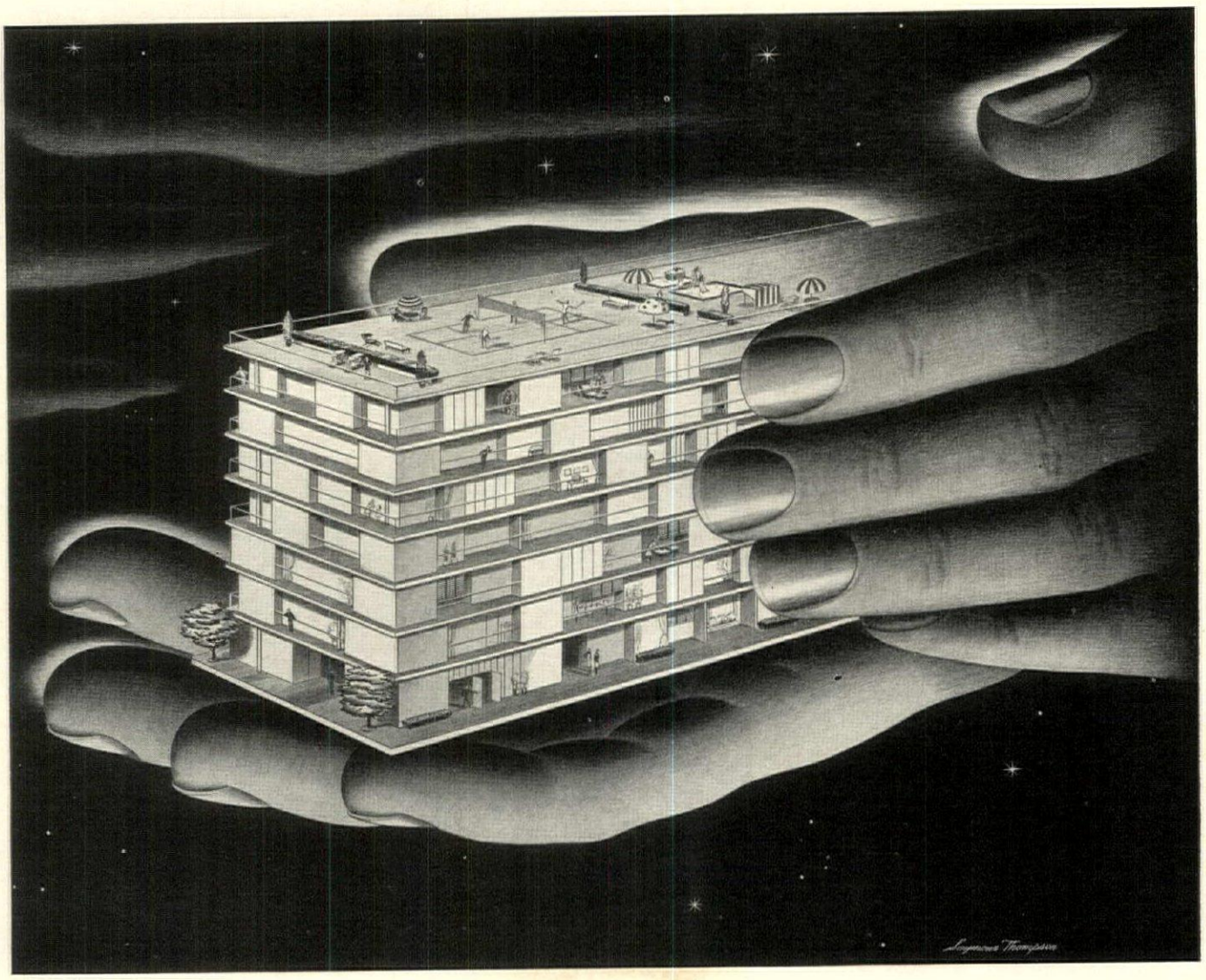
THIS IS THE SECOND OF A SERIES DEALING WITH THE PART OF TILE-TEX IN THE DEFENSE PROGRAM

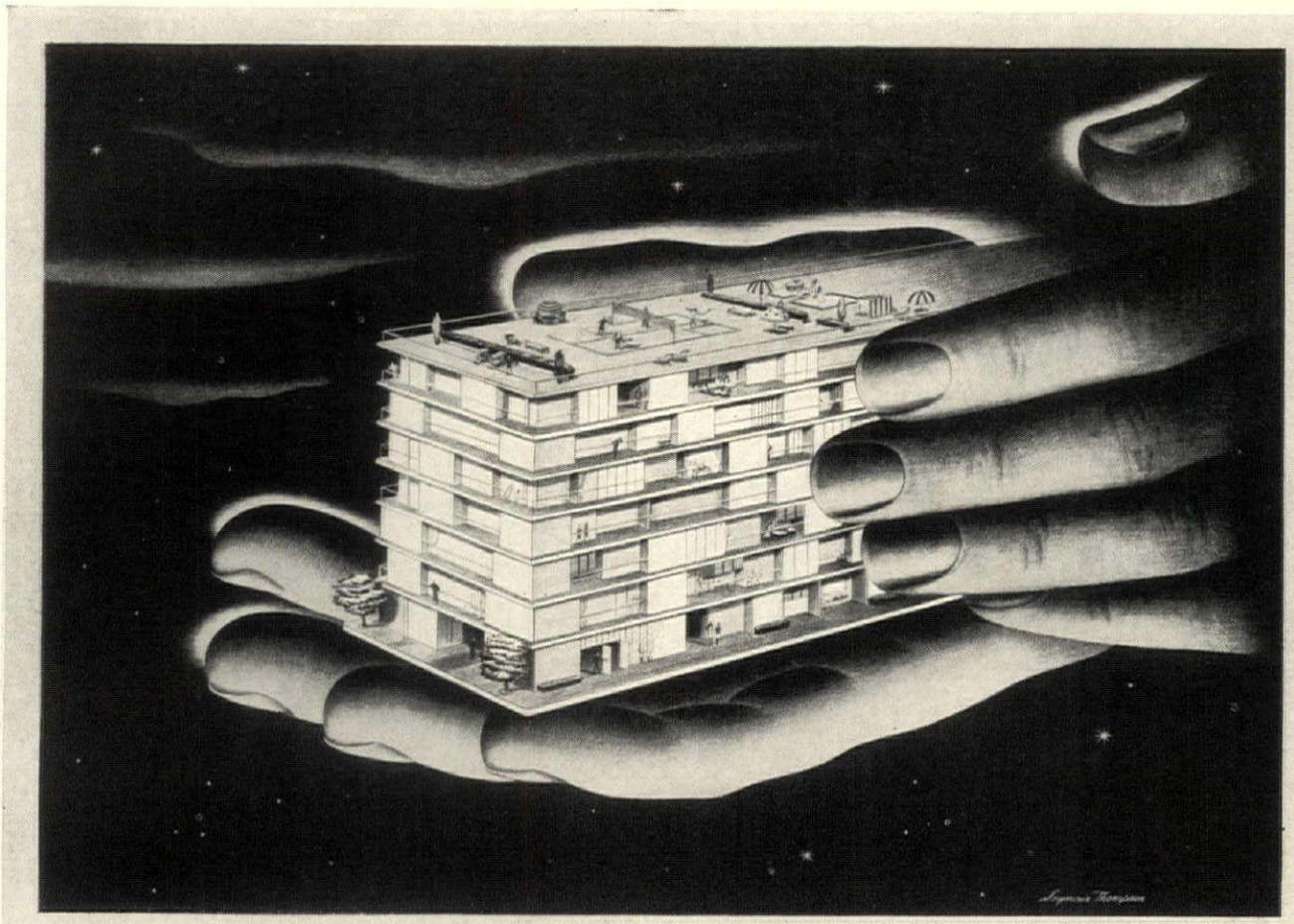
Helping to make the multiple dwelling more attractive to owners and tenants

Nearly four million families rent apartments in multiple dwellings, according to latest census figures. Only by providing for this 13% of the population can plans for post-war construction bring full benefit to every element in the building industry.

By designing into the apartment house of tomorrow a flexibility in living arrangements equal to that of the private home, apartment living could be made more desirable, the perennial tendency for tenants to vacate could be greatly reduced and the market could be enlarged. The owner's profit would increase as a result of fewer vacancies and lower maintenance costs, while rentals could be held at a low figure attractive to tenants.

From ideas such as these has come the design of Walter Sanders and his associates for an entirely new kind of apartment building to provide better living for more people. Revere presents this conception as a further way in which the mass production of housing can bring enlarged opportunities to the architect, the builder, the realtor, the financier, the manufacturer.





"... as good as Aladdin's lamp"



JUST because you live in an apartment there is no reason why you should not look forward to better living tomorrow—that is, to greater freedom to arrange living space as families wax and wane, as tastes change with the times, as fortunes go up and down.

Today, in an apartment house, such dissimilar groups as newlyweds, large families with servants, or friends who share the rent must adapt themselves to almost identical accommodations.

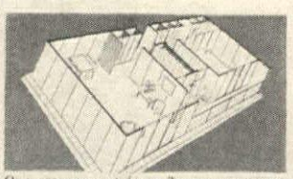
Tomorrow, you will be able to rent an apartment simply on the basis of the space you need. Then you will assemble your own home, large or small, simplex or duplex, with or without terraces. Later, if you change your mind, if you need another bedroom, if you need a dining room, or do not need the one you have, your space can be reorganized in a few hours.

Aladdin could do no better. Even with his lamp he had to wait over night.

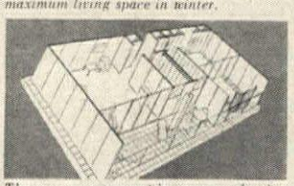
Such a building would be of metal frame construction, mass produced, and incorporating the necessary copper water supply, drainage and electric conduits. The exterior wall sections can be solid, or of translucent or clear glass. The floors and ceilings of individual apartments would be of formed lightweight hollow metal sections. The partitions would be similar to the exterior wall sections, and like the floors and ceilings, would contain the necessary copper piping and wiring.

Obviously, this method of construction applies to all types of buildings. It is ready today, subject to the supply of materials, to make life more pleasant and economical for you and more profitable for your landlord.

WALTER B. SANDERS



One arrangement for a 3-room apartment, showing how walls would be placed for maximum living space in winter.



The same arrangement in summer, showing how walls may be moved inward to provide a spacious private terrace outdoors.

The heart of the American standard of living is the home. Architects, in preparing for us homes for better living are finding expression as thrilling as any slender temple in the East or Gothic structure in the West which their art has thrust into the sky.

It is our desire at Revere to contribute something to this better living that all Americans are fighting for today. That is why in our laboratories we are seeking ceaselessly for the new developments in copper and its alloys, which can make the dreams of architects come true, and provide you tomorrow with a better, cheaper, happier home.

* * *

Naturally, in this space, Mr. Sanders could mention only a few features of his conception. So Revere has prepared an illustrated booklet covering further details. We will gladly send it to you, free. Write us.



* * *

REVERE

COPPER AND BRASS INCORPORATED

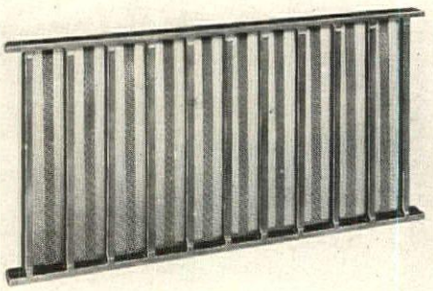
Executive Offices: 230 Park Avenue, New York

In presenting various concepts of tomorrow's homes by leading architects and designers, Revere Copper and Brass Incorporated seeks only to stimulate public interest in better housing, confident in the knowledge that the greater use of copper and brass makes any house better to live in, better to own, better to rent or sell. The Revere Technical Advisors are always ready to help with your problems.

Building Reporter

(Continued from page 48)

or any composition material. Self-bonding, odorless and verminproof, it can be painted any color.
Manufacturer: J. W. Mortell Co., Kankakee, Ill.

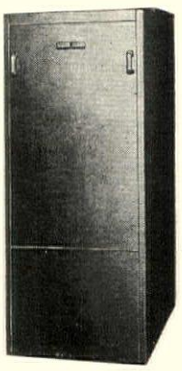


FOUNDATION GRATE designed to meet cost and dimensional needs of war house construction.

Name: Screened Bar-Type Foundation Grate.

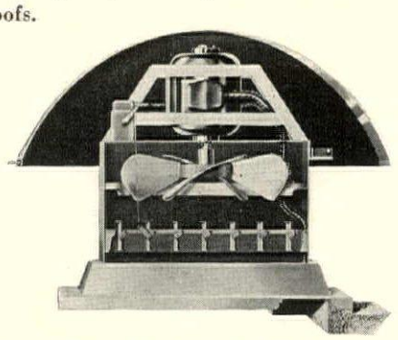
Purpose: To prevent admission of insects, dirt, other foreign objects, in ventilating under-floor house areas.
Features: Unit consists of two adjacent rows of alternately spaced, vertical, cast semi-steel bars. The two rows overlap each other slightly to form what is substantially a single, closely-spaced staggered row. A heavy galvanized screen is then threaded between the bars. Grate sizes: 8 x 8, 8 x 12, 8 x 16 in.
Manufacturer: The Majestic Co., Huntington, Ind.

WINTER AIR CONDITIONERS, featuring compactness, can be installed in closets or out-of-way corners.



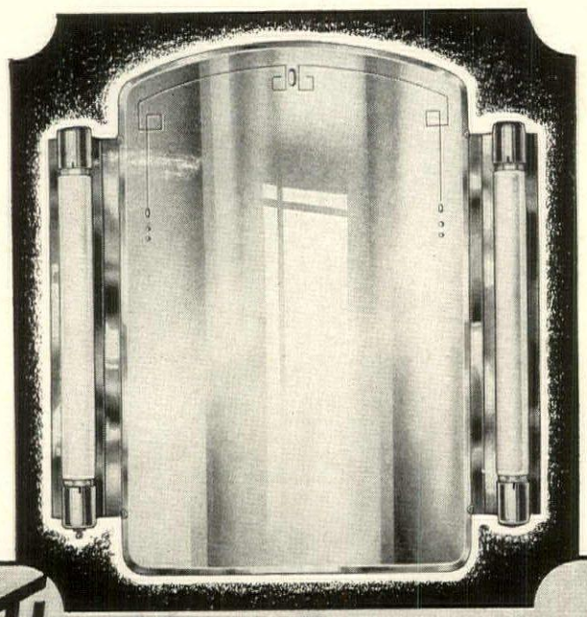
Name: G-E Packaged Furnaces.
Purpose: For heating with either oil or gas. (Developed originally for civilian use as part of a long-range program to create low-priced "packaged" merchandise, these units are now obtainable only on defense housing orders.)
Features: Line comprises one oil-fired model (illustrated), three gas-fired models. All are completely factory wired and assembled. They are extremely compact, have been approved for close-quarter installations. The oil-fired unit, for instance, requires a minimum clearance of only 2 in. on all sides. With a rated capacity of 100,000 Btu. per hour, it requires less than 6 sq. ft. of floor space, stands a little over 5 ft. high. The smallest of the gas-fired units (output rating: 48,000 Btu.) requires less than 3½ sq. ft. of floor space, stands only a little over 4 ft. high. The furnaces provide warm, clean circulated air. Replaceable filters remove dirt and dust.
Manufacturer: General Electric Co., Bloomfield, N. J.

BLACKOUT VENTILATORS, lightproof and weatherproof, are easily installed on factory roofs.



Name: Trane Blackout Ventilators.
Purpose: For use in factories and other buildings where work must be carried on uninterruptedly despite possible air raids.
Features: Three models are offered—an exhaust unit, a summer supply unit, a winter supply unit. The first two are similar in design (see illustration), move air out or in mechanically in large quan-

(Continued on page 54)



Typical of the new Lawson Line of "Quiet" Fluorescent Lighted Cabinets is the Berkshire No. 888 FLR. Finished in "Lustre Lux" baked enamel, this handsome cabinet is also available without side lights.

The New LAWSON "QUIET" Fluorescent Bathroom Cabinets

THE FLUORESCENT LIGHTING BATHROOM CABINETS THAT ARE *MECHANICALLY RIGHT*

NOW you can specify a fluorescent lighted bathroom cabinet that is *mechanically right* as well as beautiful in appearance.

The newly designed Lawson "Quiet" Fluorescent Lights are not just a makeshift attachment, but an integral part of the cabinet! Due to a patented self-starting switch and an improved resister, all hum and flicker have been eliminated. In addition, because the lights are luminous over the entire surface of the tube, they give more light with less glare. Switch to operate both lights in base of left bracket, convenience outlet in base of right bracket.

We will manufacture Lawson "Quiet" Fluorescent Lighted Cabinets as long as materials are available. For complete details write for AIA File today.

Lawson BATHROOM CABINETS
126 YEARS OF QUALITY Lawson

THE F. H. LAWSON CO.
Cincinnati, Ohio

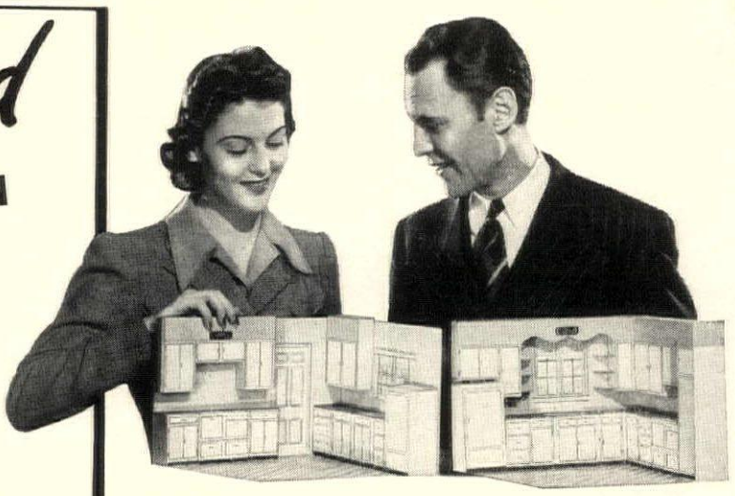
Specialists in Cabinets for ★ *Defense Housing* ★

SOLD EXCLUSIVELY THROUGH WHOLESALE OUTLETS

Satisfied

HOME OWNER IN THE MAKING!

This is a mighty important decision for any woman to make. But she's sure to get the kind of kitchen she's always wanted, even decorated "her" way—with the help of the Curtis Kitchen Planning Service. Look—





A "perfect" kitchen as far as she's concerned. Curtis Kitchen Plans are easy for your client to understand—*and act from!* They save you planning time. It's a proved, sure-fire method of assuring kitchen satisfaction.



Figuring very prominently in any kitchen plan are cabinets for food, household appliances, storage, etc. Sturdy Curtis wood cabinets are space savers, have great utility value; they're well designed and carefully built in Ponderosa Pine. They'll fit many bathroom, closet and wardrobe uses, too.

Curtis dealers deliver cabinets in dustproof cartons, assuring "fresh," clean stock that's ready for any decoration. These high-quality cabinets are excellent for use in bathrooms, closets, bedrooms, recreation rooms—and wherever convenient storage space is required.





Multiply this satisfied housewife by more than 60,000 and you get some idea of the number of "Mrs. America's" in new and remodeled homes, low-cost or otherwise, who've taken this easy step to lasting kitchen satisfaction.

● Let the Curtis dealer help you plan kitchens. Curtis units are priced to meet limited budgets on building or remodeling. Send the coupon now for more information on Curtis *wood* kitchen cabinets and Curtis stock woodwork for all types and sizes of homes.

CURTIS WOODWORK IS SOLD BY RELIABLE DEALERS EVERYWHERE

1866

CURTIS WOODWORK

When in New York, visit the Curtis display at Architects' Samples Corporation, 101 Park Avenue

CURTIS COMPANIES SERVICE BUREAU
Dept. AF-4K, Curtis Building, Clinton, Iowa
Send me complete information about Curtis Kitchen Planning Service and Curtis Architectural Woodwork.

Name.....

Address.....

City.....*State*.....

Building Reporter

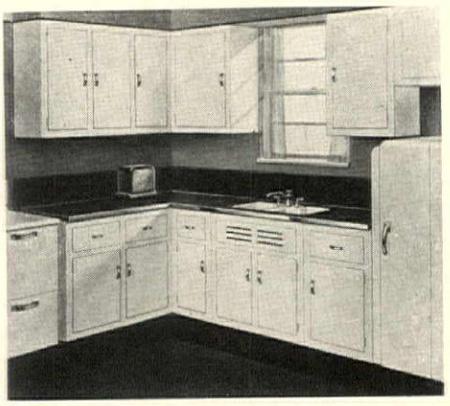
(Continued from page 52)

tities. The third, however, is intended for hook-up with the existing heating system —it contains heating coils, face and bypass dampers, and a propeller fan. All are easy to install: a simple roof curb is all that is needed. All maintenance can be accomplished from the rooftop. The light-concealing hood hinges upward, exposing the motor and blower assembly as well as the damper motor and its linkage. Opened, it can be locked in place so that it will not suddenly drop or be blown shut. It may also be locked in the closed position. Damper closes when the fan motor stops, opens when it starts. Capacities range from 1,500 to 20,000 c.f.m.
Manufacturer: The Trane Co., La Crosse, Wis.

FAUCET SEAT stops leaks, is easily installed.

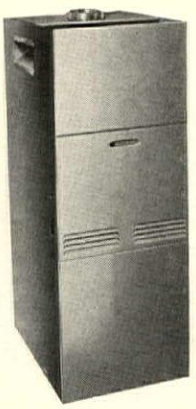
Name: Grip-Tite.
Purpose: To prevent wasteful faucet leaks.
Features: Resembling a cork with a hole in its center, this combination faucet seat and washer unit has a composition body with brass lining. It fits into the faucet seat hole, expands automatically, seals tight against any water pits or creases. No washers or screws are required.
Distributor: Stuart-Marshall Sales Co., Inc., 11 West 42 St., New York, N. Y.

KITCHEN CABINETS. Simplified line developed to meet war housing requirements.



Name: Kitchen Maid Cabinetry Units.
Purpose: To fit the limitations of low-cost war housing.
Features: Identical with this company's higher priced lines, all units are standardized, may be used singly or in groupings. All frills and extras have been eliminated. Despite the fewer models in this new line, practically any kitchen arrangement can be accommodated. Construction features: smooth, warp-proof doors; non-sticking drawers; dowel joints; hardwood frames; factory-sealed finish.
Manufacturer: The Kitchen Maid Corp., Andrews, Ind.

AIR CONDITIONER. Gas-fired unit available in three compact, easily installed sizes.



Name: Janitrol FCS Furnace.
Purpose: For low-cost war housing.
Features: Unit incorporates the heat exchanger and gas burner used in other Janitrol products. This type of exchanger consists of a battery of heavy gauge steel tubes, vertically placed with horizontal fins projecting into the air stream, thus giving a maximum heat transfer area. The burner is constructed of gray iron into which are welded a series of corrugated strips forming the burner ports. This construction results in a clear flame that travels rapidly along the ports with a long range of turn-down combined with quiet operation. All controls are enclosed and accessible from the front. Three capacities: 60,000, 75,000 and 90,000 Btu.

(Continued on page 58)



TECO TIMBER TRUSSES
Go to Chapel!

This Army Chapel, one of 604, is typical of small, wood churches found in many American communities.

TECO Timber Trusses, spanning the 37′ x 81′ auditorium, support the roof and add a churchly note.

For complete information about the TECO System of Timber Construction —mail coupon!

The TECO Ring Connector spreads the load on a timber joint over practically the entire cross-section of the wood.

TIMBER ENGINEERING CO.
1337 Connecticut Avenue
Washington, D. C.

Please send us complete information on the TECO Connector System of timber construction. 0-4

Individual.....
Firm.....
Street.....
City.....State.....





Walls — *Palace Guardroom Green Wallhide Flat, 25-40.* Arch—*White Wallhide Semi-Gloss, 27.109.* Ceiling—*Oyster White Wallhide Intermix.* Mantel—*Palace Guardroom Green Wallhide Flat, 25-40 with a coat of Pittsburgh Satin Finish Varnish.*

Presenting To The Architects And Interior Designers Of America:

14 Beautiful Wallhide Shades

Approved by Williamsburg Restoration

WITH both government and industry warning the public to *"protect the things you have"*, there is a stronger motive than ever today for architects and designers to specify Pittsburgh colors of the Williamsburg Restoration . . . not for beauty alone, but for their sturdy surface protection!

These subtle off-tones are now reproduced with utmost accuracy in ready-mixed, inexpensive Pittsburgh Wallhide Paints . . . with the exclusive approval of Williamsburg Restoration.

Reflecting old Williamsburg's atmosphere of gracious living and elegance, the 14 lovely Wallhide shades have the happy faculty of harmonizing with every period of decoration. There are tones so soft that they blend with the most delicate 18th Century interiors and others vigorous enough for severe modern furniture.

Your clients and prospective clients are today especially alive to the decorative appeal of the Williamsburg Restoration. That's why we would like to place in your hands material which will help you in your paint specifications. Wallhide paints, in colors approved by Williamsburg Restoration, are well within the price of ordinary wall finishes. Just write for our Wallhide Color Card Book. It will be sent without obligation of any sort to you.

PITTSBURGH PAINTS

WALLHIDE • FLORHIDE • WATERSPAR • SUN-PROOF

Smooth as Glass

CONCRETE helps rush *sturdy, hazard-resistant* war factories



Office building of new 7-acre plant, Ducommun Metals & Supply Co., Los Angeles. Albert C. Martin, architect; Joshua H. Marks-Charde Co., contractor.

Architectural Concrete has special value in the design and construction of war plant buildings because:

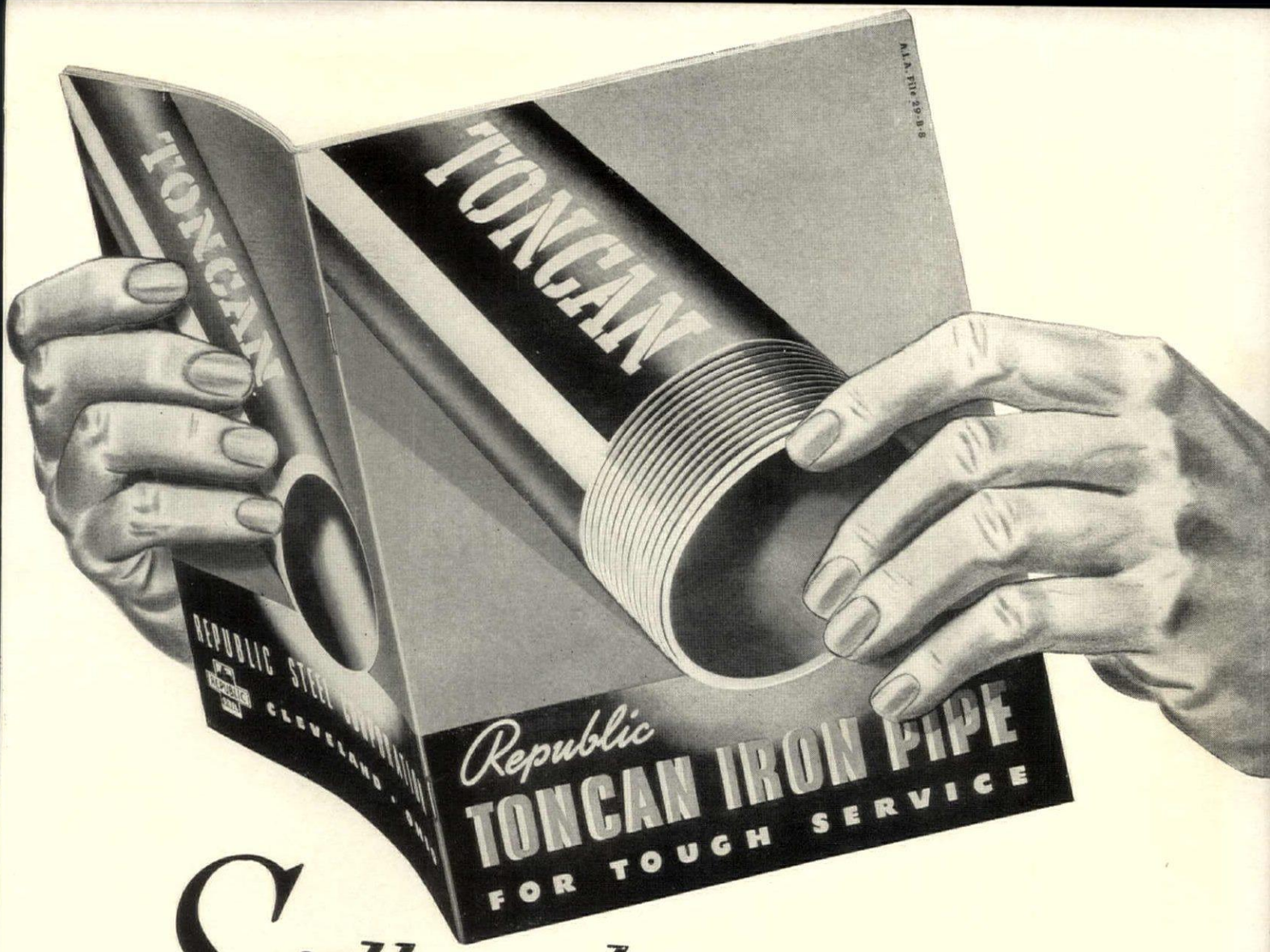
- Concrete helps prevent fires or check their spread—concrete *can't burn.*
- Rigid concrete construction resists vibration, shocks, emergency overloads.
- Concrete is economical in first cost and upkeep—one thrifty, durable material for walls, frame, floors, roofs.
- *Concrete construction places a minimum burden on transportation; aggregates usually found locally.*
- *Concrete provides rigid firesafe structures with minimum critical materials.*

Ask your architect or engineer about Architectural Concrete. See Sweets Catalog, 4/45. Booklet, *"Concrete for Industrial Buildings,"* mailed free in the United States or Canada.

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Dept. 4-7, 33 W. Grand Ave., Chicago, Ill.

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Get this latest edition of Toncan Iron Pipe news. Forty-eight pages of editorial and pictorial facts about the advantages of Toncan Iron Pipe—from its qualities as an open-hearth iron to its long life of service under severe corrosive conditions.

Read these authentic facts about Toncan Iron Pipe—why it is made from *open-hearth iron, not* open-hearth *steel*—what this adds to its *rust-resistance,* its easy workability—what *molybdenum* contributes to its grain structure, its uniformity—why Toncan Iron has *twice as much copper* as the finest copper-bearing steel pipe—why this *alloyed* open-hearth iron ranks *first* in corrosion-resistance among all ferrous metals in its price class—and finally, that as an open-hearth iron, copper-molybdenum pipe is included in Federal Pipe Specification WW-P-403a.

When you know these facts—and get them *straight* from a producer of carbon steel, copper-bearing steel and alloy iron pipe—you'll see how you can add to the value of your service, by specifying Toncan Iron Pipe.

Write for a copy of the Toncan Iron Pipe book, 333-R, now. In the meantime, see Sweet's 27/3 on pipe—13/6 on sheets—23/5 on Steel and Tubes —9/1 and 21/2 on Berger—15/18 on Truscon.

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REPUBLIC
Toncan Iron PIPE

Reg. U. S. Pat. Off.

An alloy of refined open-hearth iron, copper and molybdenum—*that grows old slowly*

Building Reporter

(Continued from page 54)

input. Outside casing dimensions in the two smaller sizes: 49 3/16 in. high, 18⅜ in. wide, 26 in. deep, sufficient to permit installation in a closet, kitchen corner, or other unusual spot.
Manufacturer: Surface Combustion Corp., Toledo, O.

FINISH for plywood forms permits speedy finishing of concrete surfaces.

Name: Formfilm.

Purpose: For use in obtaining smooth concrete surfaces, speedily and cheaply. *Features:* The liquid finish is applied to plywood forms, either by dip or brush, and allowed to harden into a smooth flexible coating that imparts the same degree of smoothness to concrete poured therein. Grain marks are eliminated. Being waterproof, the coating causes water in the concrete to gather on the wearing face. This film of water aids materially in getting a concrete surface which is hard, smooth and free of saponification. Treated plywood can be used five to eight times before re-finishing is required.
Manufacturer: A. C. Horn Co., Long Island City, N. Y.

New Critical List NOW PROVIDES For WEISWAY Cabinet Showers



Typical Weisway installation shows how these leakproof cabinet showers provide a complete, self-contained bath, in a three-foot square or less, in old or new buildings.

★ Already widely used in remodeling for defense living quarters, Weisway Cabinet Showers now have unquestioned priority rating for both new and remodeled defense housing — whether large-scale projects or individual home.

The official defense housing list of critical materials specifically authorizes this type of bath . . . and thus gives further recognition to the special adaptability of Weisways to our urgent housing needs. Weisway Cabinet Showers save in many ways,* while providing a complete, leakproof bath in a 3-foot square or less.

In the Weisway line you have a range of models to meet various needs, high quality workmanship, guaranteed leakproof construction in every model! Our new catalog booklet, with full color illustrations, gives complete information about "Weisway Cabinet Showers for Defense Living Quarters."

Write today for your copy—it's sent free and without obligation.

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***WEISWAYS SAVE FOR UNCLE SAM**

These self-contained, leakproof baths save space . . . save metal . . . save water and hence fuel . . . save bathing time for busy defense workers . . . and provide the cleansing, refreshing shower bath that builds health and morale.

WEISWAY Cabinet Showers

HENRY WEIS MFG. CO., INC.
402 Oak St., Elkhart, Indiana

NEW TRADE LITERATURE

GLASS. *Glass and Its Adaptability to Modern Needs.* Brochure, 30 pp., 8½x11. An excellent and timely document, prepared at OPM's suggestion as an aid in finding substitutes for strategic materials. Various glass products are enumerated, their properties described, various possible uses listed. Pittsburgh Plate Glass Co., Grant Bldg., Pittsburgh, Pa.

PIPE. *1942 General Catalog.* Sixty-two pages replete with technical data about the company's wrought iron products (made since 1864), its welded steel, pipe and tubular products, and alloy steels (introduced recently). A. M. Byers Co., Clark Bldg., Pittsburgh, Pa.

REINFORCED CONCRETE. *Manual of Standard Practice.* Booklet, 64 pp., 8½x11. A new edition, completely revised in line with the latest ACI Building Code Regulations. Concrete Reinforcing Steel Institute, Builders Bldg., Chicago, Ill. Free to architects and engineers, 20 cents a copy to all others.

PLASTERING. *Wood Lath of Western Pines.* Folder, envelope size, features a material available in any required amount without bothersome priority restrictions. Western Pine Assn., 510 Yeon Bldg., Portland, Ore.

WINDOWS. *The Perfected Sash Balance.* Catalog, 8 pp., 8½x11. Intended primarily for low-cost housing, this product features invisibility and dependability. Grand Rapids Hardware Co., Grand Rapids, Mich.

DOORS. *Kinnear Rolling Doors.* Catalog, 40 pp., 8½x11. A wealth of clearance data, other essential engineering specifications. Advantages of steel doors are featured. The Kinnear Mfg. Co., 820 Fields Ave., Columbus, O.

FLOOR TILE. *Floors That Endure by Tile-Tex.* Catalog, 12 pp., 8½x11. Manufactured in 62 colors and 16 sizes, the asphalt-asbestos tiles combine to form a wide variety of colorful flooring patterns. Color charts and illustrations offer worthy design suggestions. The Tile-Tex Co., Chicago Heights, Ill.

PAINTS. *Valdura Selector.* Chart, 17x22, folds to letterhead size. A handy means of selecting the right paint without detailed technical study of the properties of all finishes that might be suitable for a given application. American-Marietta Co., 43 East Ohio St., Chicago, Ill.

BATHROOMS. *Weisway Showers for Defense Living Quarters.* Catalog, 8 pp., 8½x11. Noteworthy as illustrating the transition from peacetime to wartime use of a space-saving type of equipment. Henry Weis Mfg. Co., Inc., Elkhart, Ind.

LIGHTING. *Industrial Lighting Data for the Architect.* A loose-leaf file: 26 pages of general data and recommendations, twelve 2-page case studies showing typical good lighting installations. Material can be easily removed from the ring binder, new sheets added. Well presented. General Electric Co., Lamp Dept., Nela Park, Cleveland, O.

INSULATION. *Heat Insulation Handbook.* 176 pp., 5½x7¼. Included: 1) a comprehensive insulation recommendation section, illustrated with 90 drawings and photographs of application details: 2) a useful data section, comprising 24 pages of engineering tables, graphs, definitions. Ehret Magnesia Mfg. Co., Inc., Valley Forge, Pa. Price, $1.

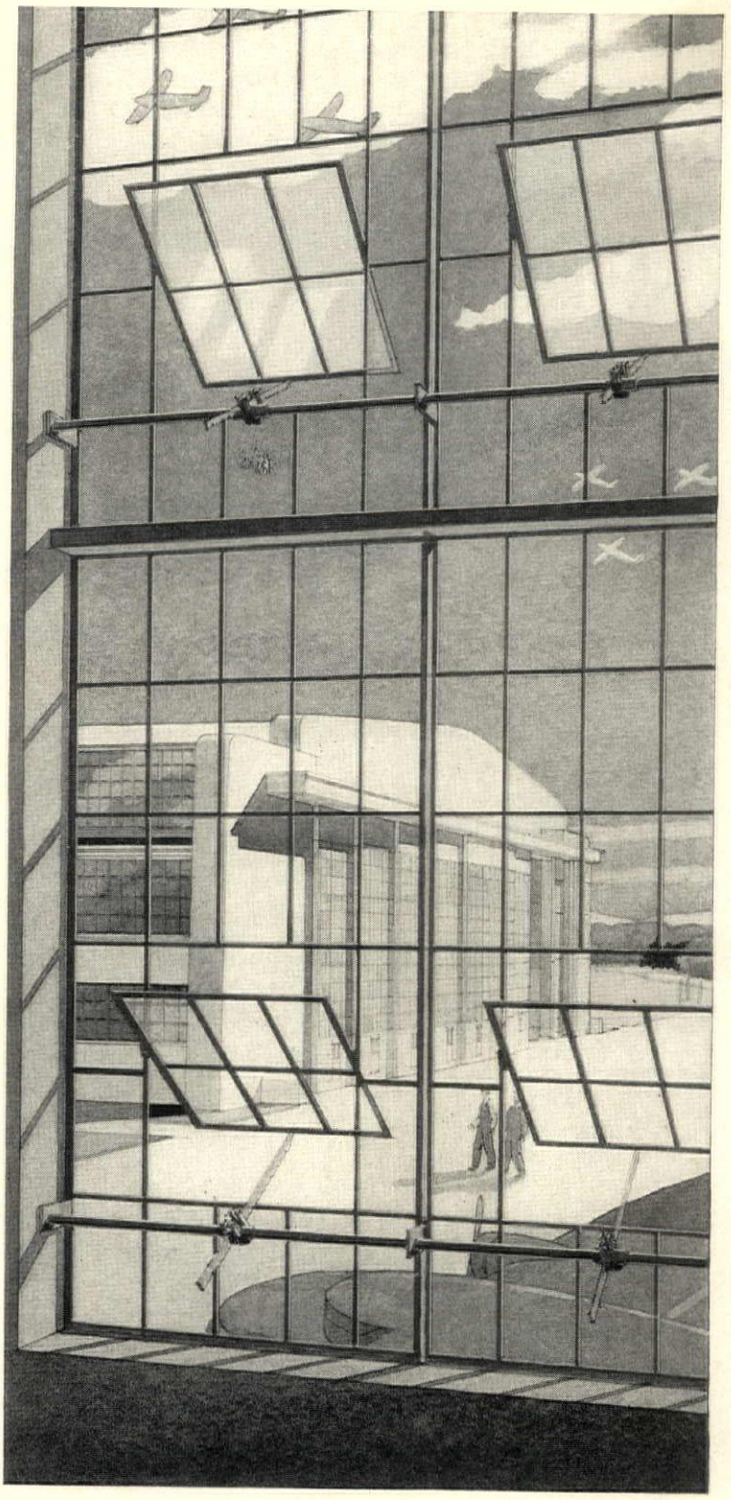
INSULATION. *Fiberglas Insulation for Prefabricated Buildings.* Pamphlet, 24 pp., 8½x11. Exceptionally timely. Tables give thermal properties of prefabricated floors, walls, ceilings. Other data: comfort measurement by means of inside surface temperatures; specific solutions to the problems of ghost marks or shadow lines due to lack of thermal balance; methods of preventing condensation. Owens-Corning Fiberglas Corp., Toledo, O.

HEATING. *I-B-R Ratings for Cast Iron Boilers.* Booklet, 44 pp., 5¼x8¼. Adopted as the standard method for determining the output of cast iron heating boilers, these ratings are the third in a series being issued from time to time. The Institute of Boiler & Radiator Mfgrs., 60 East 42 St., New York, N. Y. Price 15 cents.

HEATING. *Book of Successful Fireplaces.* Booklet, 64 pp., 8½x11, now in its ninth edition. Featured: heat circulating fireplaces, outdoor fireplaces. Amply illustrated. The Donley Brothers Co., 13900 Miles Ave., Cleveland, O. Price, 25 cents.

ARP. *Employee Organization for Fire Safety.* Pamphlet, 48 pp., 6x9. Particularly timely for its information on protection of industrial plants against air raids and incendiaries. National Fire Protection Assn., 60 Batterymarch St., Boston, Mass. Price, 25 cents.

Hangar Buildings recently constructed at an Air Base, using Lupton Steel Hangar Doors and Metal Windows.



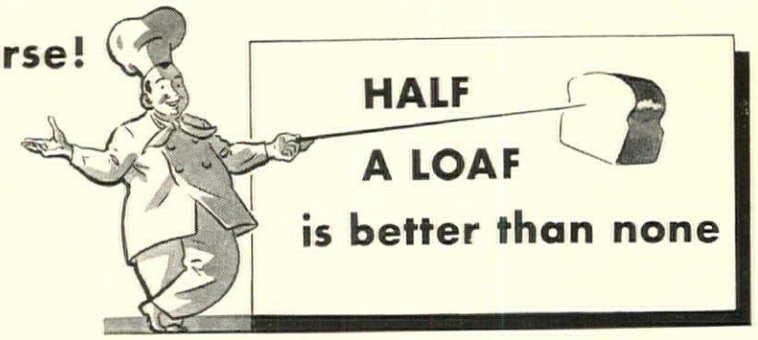
"Air Base Under Construction"...
You can read the dramatic story in today's headlines. But the Lupton Steel Hangar Doors and Windows being installed today are the product of long experience. Constructed to meet the most exacting requirements of dependability and service. You can have this same assurance of correct design and high standard of manufacture in every type of war construction by specifying Lupton Products.

See our Catalog in Sweet's

MICHAEL FLYNN MANUFACTURING CO.
Allegheny Ave. at Tulip St., Philadelphia, Penna.

LUPTON
METAL WINDOWS

Of course!



But if you specify the INSULITE APPROVED WALL OF PROTECTION

You give your clients the *whole loaf* in modern wall construction!

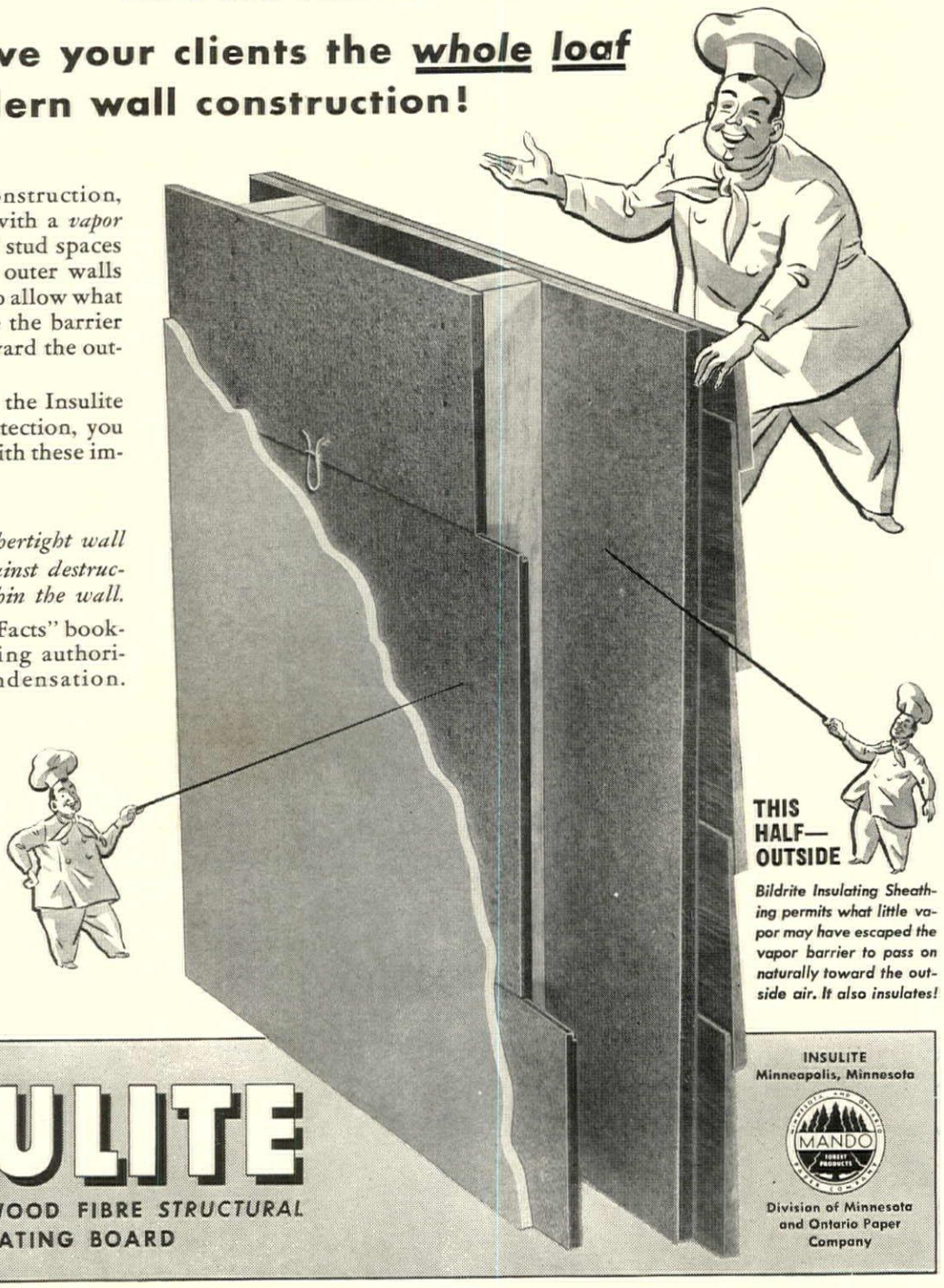
TO PROVIDE sound construction, walls should be built with a *vapor barrier* on the inside of stud spaces to retard vapor travel; outer walls should be constructed to allow what little vapor may escape the barrier to pass on naturally toward the outside air.

If you always specify the Insulite Approved Wall of Protection, you have such a wall, and with these important advantages:

- *Double Insulation*
- *A double strong weathertight wall*
- *Double protection against destructive condensation within the wall.*

Write for "Scientific Facts" booklet, which quotes leading authorities on moisture condensation.

Address inquiries to Insulite, Dept. AF42, Minneapolis, Minn.



THIS HALF—INSIDE

Sealed Graylite Lok-Joint Lath with an asphalt vapor barrier effectively retards vapor travel, and provides effective insulation.

THIS HALF—OUTSIDE

Bildrite Insulating Sheathing permits what little vapor may have escaped the vapor barrier to pass on naturally toward the outside air. It also insulates!

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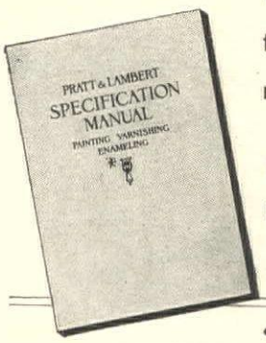


Swasey Chapel Tower

NEW LIFE SCIENCE BUILDING, DENISON UNIVERSITY, GRANVILLE, OHIO
WILLIAM GEHRON, Architect, New York City : BOHL PAINTING CO., Painting Contractors, Columbus, Ohio

Swasey Entrance; (at top) Chapel Walk

FOUNDED in 1831, Denison is one of America's oldest colleges. Located in quiet, historic Granville, Ohio, Denison is ideally suited in atmosphere, equipment and personnel to provide the student with an unusual educational opportunity in any of its 22 departments. The latest addition, Life Science Building, as well as the Chapel and other structures, are protected and decorated with Pratt & Lambert Paint and Varnish, including Lyt-all, the Universal Wall Coating, and Vitralite, the Long-Life Enamel.



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BOOKS

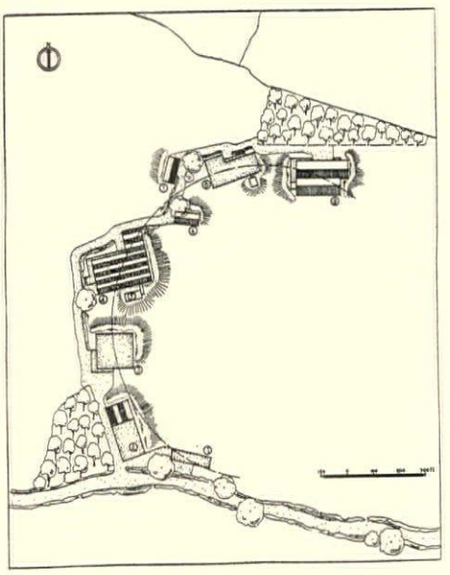
(Continued from page 32)

THE MEN WHO MAKE THE FUTURE, by Bruce Bliven. Duell, Sloan and Pearce. 325 pp. 6 x 8¾. $2.75.

The title of this book is somewhat misleading, as "the men who make the future" are for the most part anonymous, appearing only through their work. Based on a series of interviews with chemists, botanists, physicists, engineers and other scientists, the book undertakes to describe the most important scientific developments of recent years and to discuss their possible impact on the world of tomorrow. Some of these developments include new treatments for cancer and the common cold, the use of colchicine in plant breeding, research in hormones, enzymes and vitamins, and new perspectives opened by atomic research. In general, except for the "confidential interview" angle, the book is just one more presentation of science in popular terms, with all the earmarks of a pot-boiler. In an era when even university presidents have been known to succumb to the idiocy of advocating curtailment in education and scientific research, the importance of having good books on science for the lay reader is obvious. Unfortunately they are not easy to write, as this book demonstrates very clearly. Mr. Bliven has a remarkable capacity for taking a complex subject and making it either incomprehensible or profoundly uninteresting. Even less impressive is the section in which the relationship of the scientist and society is discussed, where the author has managed to ignore virtually all of the important problems that might have been considered. The problems of the relationship between a community and those useful activities, such as science, which it either fosters or suppresses, are crucial, and they are very much in need of intelligent examination. There is little here, however, to help science, society, or the serious reader.

WARTIME BUILDING CONSTRUCTION. Chemical Publishing Company, Inc., Brooklyn, N. Y. 151 pp., illustrated. 5¾ x 8¾. $4.00.

This is the first American edition of another of the now familiar series of official war-time publications that have been appearing for several years in England. It is primarily a handbook for architects and engineers. The major emphasis throughout is on structural methods which make minimum use of strategic materials. Since wood, in England, comes under this heading, the favored materials are concrete in a great variety of forms, tile and brick;



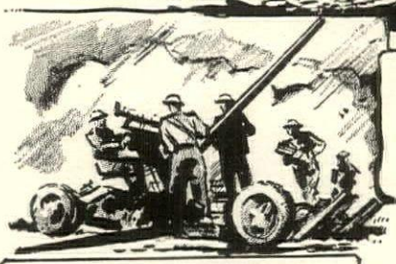
this selection is also encouraged by the danger from incendiary bombs. New plants go to great lengths, as shown by the illustration, to take on forms not readily spotted by hostile aircraft. Favorable sites are discussed at some length, as well as features of the buildings themselves which tend to make recognition difficult. Obviously there is no hope of achieving peacetime production efficiency under such conditions as are suggested by the drawing, but this is a small consideration compared to the importance of keeping plants free from raid damage.

STRANGE STORIES — THAT "STICK"

CONSTRUCTION GLUE WITHSTANDS TORNADO!

IN A RECENT TORNADO IN EVANSVILLE, INDIANA A LAUCKS GLUE CONSTRUCTED BUILDING WAS NOT DAMAGED STRUCTURALLY WHILE ORDINARY CONSTRUCTED BUILDINGS WERE TOTAL LOSSES





LAUCKS CONSTRUCTION GLUE MEETS SPECIFICATIONS 3-152-A OF THE UNITED STATES ARMY

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GLUE 13 TIMES STRONGER



PLYWOOD SHEATHING GLUED ON STUDS IS 13 TIMES MORE RIDGID THAN HORIZONTAL SHEATHING ACCORDING TO U.S. FOREST PRODUCTS LABORATORY FINDINGS!

THOUSANDS of jobs in wartime building demonstrate spectacularly what Laucks chemists and engineers have proved for years . . . the superiority of Laucks glue in construction.

Laucks Construction Glues are being used for affixing millions of feet of wallboard to studdings, joists, etc., by contractors and prefabricators . . . in making laminated arches and beams for factories, barns, hangars, churches . . . for innumerable "glue-welding" jobs.

Why have Laucks CONSTRUCTION GLUES been selected almost exclusively for this work? Because they are formulated especially for this use. They are . . .

SELF-BONDING . . . *no heavy weights or clamps are required, simply good contact.*

WATER-RESISTANT . . . *meet U. S. Navy and Army, federal aircraft specifications.*

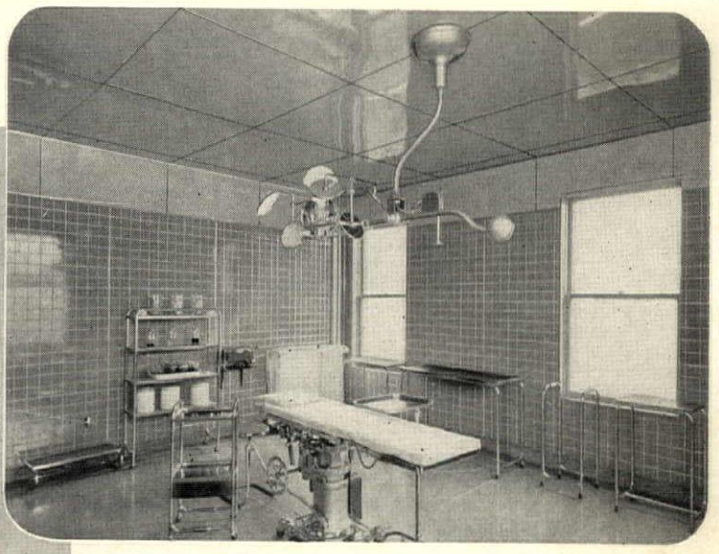
STRONGER . . . *"stronger than nails" by test—and easier to get!*

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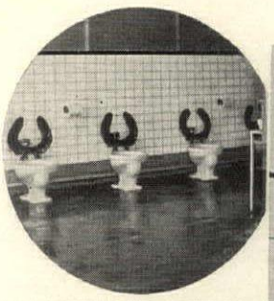
• LAUCKS CONSTRUCTION GLUES •

FOR MILITARY AND CIVILIAN HOSPITALS. Jade Green Marlite and Pheasant Green Tile-Pattern in operating room of St. Mary's Hospital, Galesburg, Illinois. Provides sanitary, labor-saving walls and ceilings that reflect maximum light without glare.



Marlite
PLASTIC-FINISHED WALL PANELS

An Essential Material for many types of Wartime Construction



SANITARY, LABOR SAVING WALLS of Marlite for latrines, toilet rooms and washrooms.



OFFICE WALLS of durable, colorful Marlite enhance workers' efficiency.



COLORFUL, LOW COST MARLITE WAINSCOTING for war housing kitchens and bathrooms.



FOR COMPLETE INFORMATION on the Complete Line of Marsh Products see Sweet's Section 11.

SOME USES AND ADVANTAGES

FOR TEMPORARY OR PERMANENT BUILDINGS. The low cost of Marlite makes it extremely practical for use in temporary as well as permanent buildings where durable, low maintenance, and highly sanitary walls and ceilings are essential.

FAST INSTALLATION. Speedy Marlite panel-at-a-time installation requires a minimum of labor, and gets interiors into use days sooner. No finishing on the job. Standard panels cover up to 48 square feet of wall area at a time.

LOW MAINTENANCE. The high heat baked plastic surface is easily kept clean with a dampened cloth. Eliminates periodic redecorating and is impervious to water, dirt, acids, alcohol, alkalies, soaps, and other common deteriorants.

IDEAL FOR REMODELING, residence, industrial, institutional and countless other interiors. Goes on right over old walls.

COMPLETE LINE SIMPLIFIES SPECIFYING AND PROCURING. The most complete range of sizes, colors, patterns, mouldings and accessories *available from a single source.*

SAVE TIME BY UTILIZING MARSH KNOW HOW. The vast fund of experience and know how acquired in pioneering and developing Marlite and its countless uses is available through Marlite Factory Representatives. Each is an authority on plastic-finished wall paneling and is qualified to advise you on its use for all types of interiors.



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* Trade Mark Reg. U. S. Pat. Off.

Marlite

Plastic-finished WALL PANELS

FOR CREATING BEAUTIFUL INTERIORS

PLAIN-COLORS HORIZONTALINE WOOD-VENEERS • • HEATEX • •
TILE-PATTERNS MARBLE-PATTERNS • CARSTENITE • TRIM MOULDINGS

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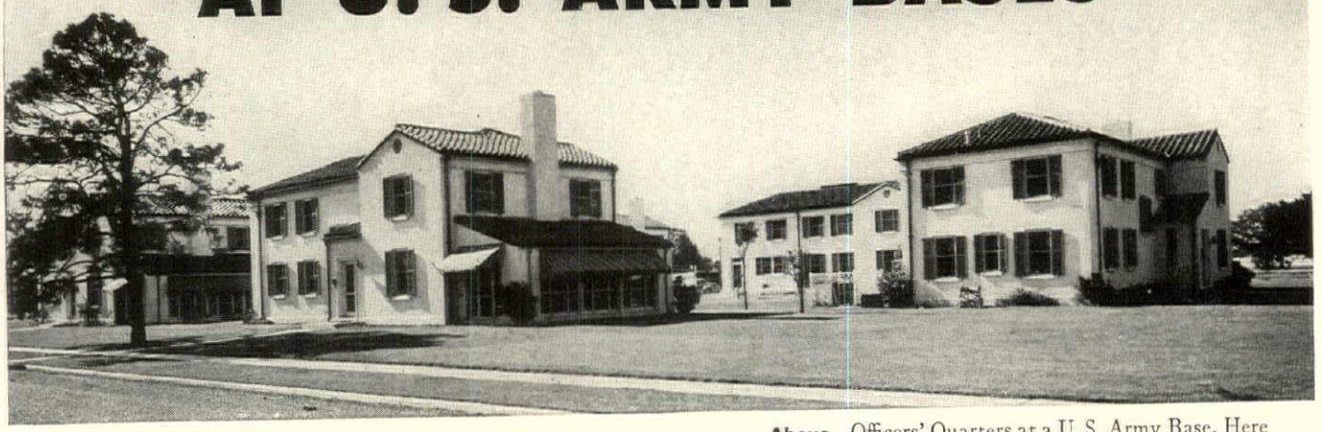
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Company.....

Address.....

City and State.....

STUCCO SAVES
STEEL—LEAD—ZINC
AT U. S. ARMY BASES



Above—Officers' Quarters at a U. S. Army Base. Here is effective use of buff colored portland cement stucco made with Atlas White cement.

Durable buildings of concrete block or cinder block or clay tile, finished with white portland cement stucco or white cement paint, provide good construction and save materials and transportation essential for war.

AT SEVERAL U. S. Army bases (names deleted), white portland cement stucco for both exterior and interior facing has been specified and applied over concrete block, cinder block, or tile. Two coats of stucco—scratch coat and finish coat—are applied directly over the walls without steel reinforcing mesh.

This construction saves critical materials—steel for nails, steel for reinforcing, lead and zinc for paint, etc. In addition, concrete products are normally manufactured not far from point of consumption. Short haul assures delivery—not long haul as with some other building materials. Hence, wider use of concrete products relieves transportation facilities.

Here's an up-to-the-minute idea for building defense workers' houses, stores, hospitals, theaters and other buildings essential to community and national welfare. Stucco made with Atlas White cement, plain or waterproofed, has proved a long-lasting, weather-resistant, fire-safe building material that is low in first cost and low in upkeep. It pays to specify it for new work or modernization. Universal Atlas Cement Company (United States Steel Corporation Subsidiary), Chrysler Building, New York City.

OFFICES AT: *New York, Chicago, Philadelphia, Boston, Albany, Pittsburgh, Cleveland, Minneapolis, Duluth, St. Louis, Kansas City, Des Moines, Birmingham, Waco.*



● Army Hospital Area under construction at U. S. Army Base. Stucco made with Atlas Waterproofed White cement was applied over hollow tile.



● Newly completed U. S. Army Mess Hall. This use of stucco made with Atlas Waterproofed White cement saved critical materials—lead, zinc and steel.

AF-5-28

ATLAS WHITE CEMENT

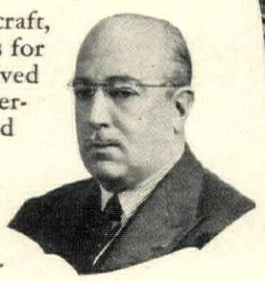
A UNIVERSAL ATLAS PRODUCT



FACTORY PLANNING IN ENGLAND TODAY

calls for GLASS

C. Howard Crane, Noted Architect, Gives This Authentic Answer On The Problem Of War Plant Design.



Architect Crane—who designs aircraft, munitions and other industrial plants for the British Government—recently arrived in this country for a brief visit. To American architects he brings the latest and most authoritative data on war plant design to come from the embattled British Isles. His remarks are of vital importance to every architect engaged in designing plants for wartime production—and after.

Architect Crane says: "Very few windowless buildings are being constructed. We have found them too expensive to build and operate. We keep in mind that such construction, for one thing, necessitates air ducts, fans and other mechanical equipment requiring metals that are more urgently needed for other defense purposes.

"Solid walls are particularly dangerous under bombing conditions and insofar as blackout is concerned, we have found a much more efficient method of construction.

"First of all, exterior walls to a height of eight feet are of blast-wall design, 14" thick. Above that height, regular steel sash is used in the walls. Temporarily, about one third of the sash area is being glazed, the remainder of the panes being filled in with asbestos, so that after the war these panels can be removed and glazed, and the building used in a normal manner.

"We want to use natural daylight and air as much as possible. Too, in case of bombing, such walls are more quickly repaired and, of course, less costly.

"The most effective blackout method is accomplished by painting the glass in fixed sash wall areas black. Windows, to assure light and ventilation during the day, are not painted but are provided with black curtains.

"There is a visible trend here to a type of building we feel sure is the best under all circumstances—the modern skeleton frame, either steel or concrete, with great windowed areas... While war is a horrible thing, it should serve to create a world of beautiful, completely utilitarian types of buildings everywhere."

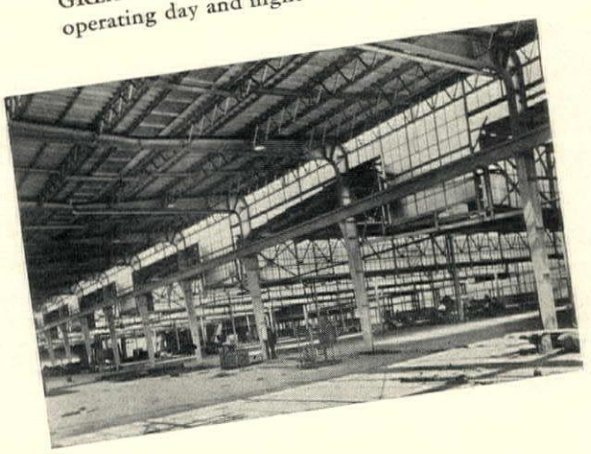
Libbey·Owens·Ford Glass Company, 1324 Nicholas Building, Toledo, Ohio.



THESE NEW AIRCRAFT FACTORIES "somewhere in England" are typical, English wartime plants. All were designed by Mr. Crane.



GREAT EXPANSES OF GLASS feature English plants operating day and night under bomb-raid conditions.



LIBBEY·OWENS·FORD GLASS COMPANY

Quality *Flat Glass* Products

FORUM OF EVENTS

(Continued from page 10)

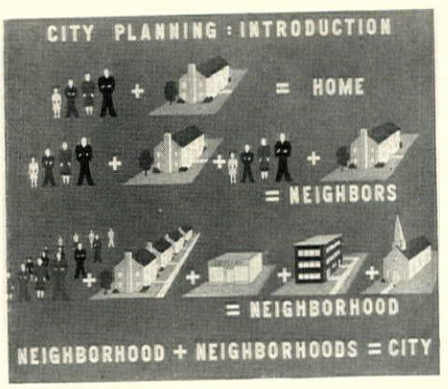
SCHOOL EXHIBITIONS

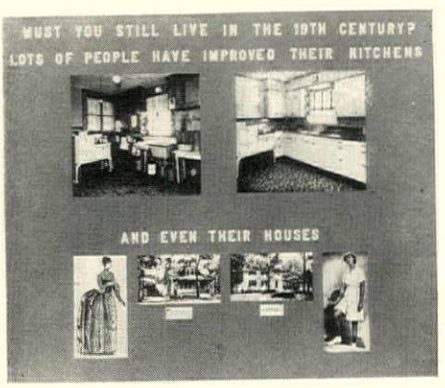
Two exhibitions have been put on for high school students this year by Buffalo's Albright Art Gallery, both dealing with architecture and city planning. The first show, "Art in Life", emphasized the importance of beginning with a basically sound structure, whether the problem be a home, neighborhood or a city. "Art in the Home", recently shown at the Gallery, concerned itself with design in relation to the requirements of home-making. The exhibition was organized to show that these requirements are both physical and psychological, and on both counts urges the acceptance of a realistic contemporary approach. The exhibitions are of interest not only for their admirable clarity, but because they go into an important field, one largely overlooked by those in favor of bringing architecture and city planning up to date. School exhibits of this character are extremely valuable, because the teen-age audiences are less hampered by prejudice than their elders, and the medium is most effective for demonstrating to this group the relationship between modern living and modern design. The shows are part of a project sponsored by the Rockefeller Foundation. The individual panels shown are a standard size now in use in the Buffalo public schools, and are part of the regular loan service maintained by the Gallery. The installation photograph, showing the standard panels mounted on ordinary corrugated cardboard, is a good example of the Gallery's efforts to demonstrate to teachers how an exhibit may be made attractive for a nominal cost.





Appleton

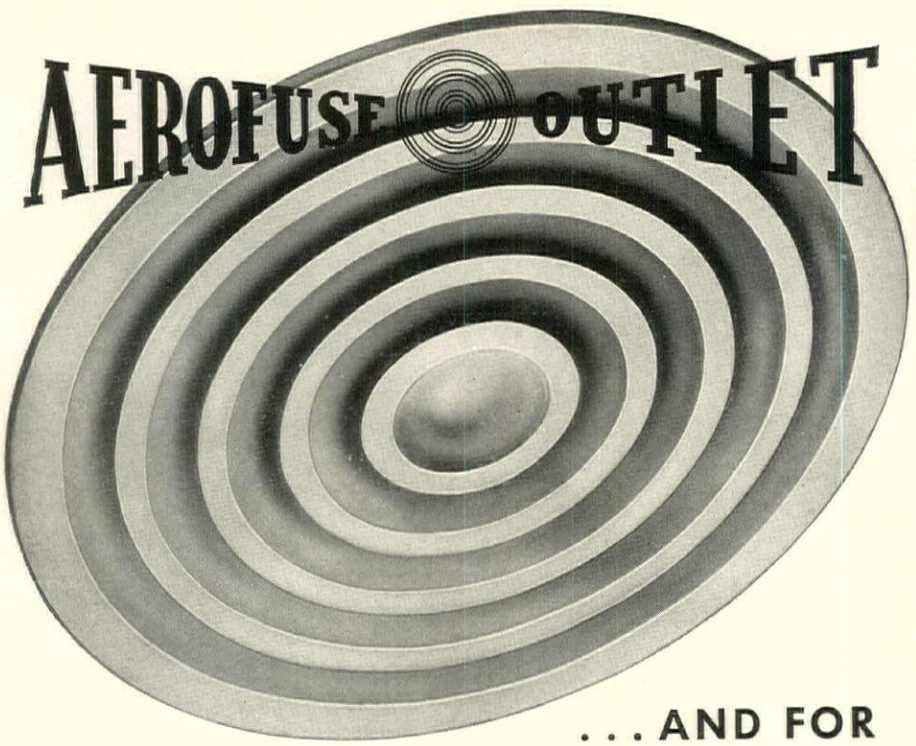




(Continued on page 70)

THE BIG SWING IS TO THE

AEROFUSE OUTLET



. . . AND FOR GOOD REASON!

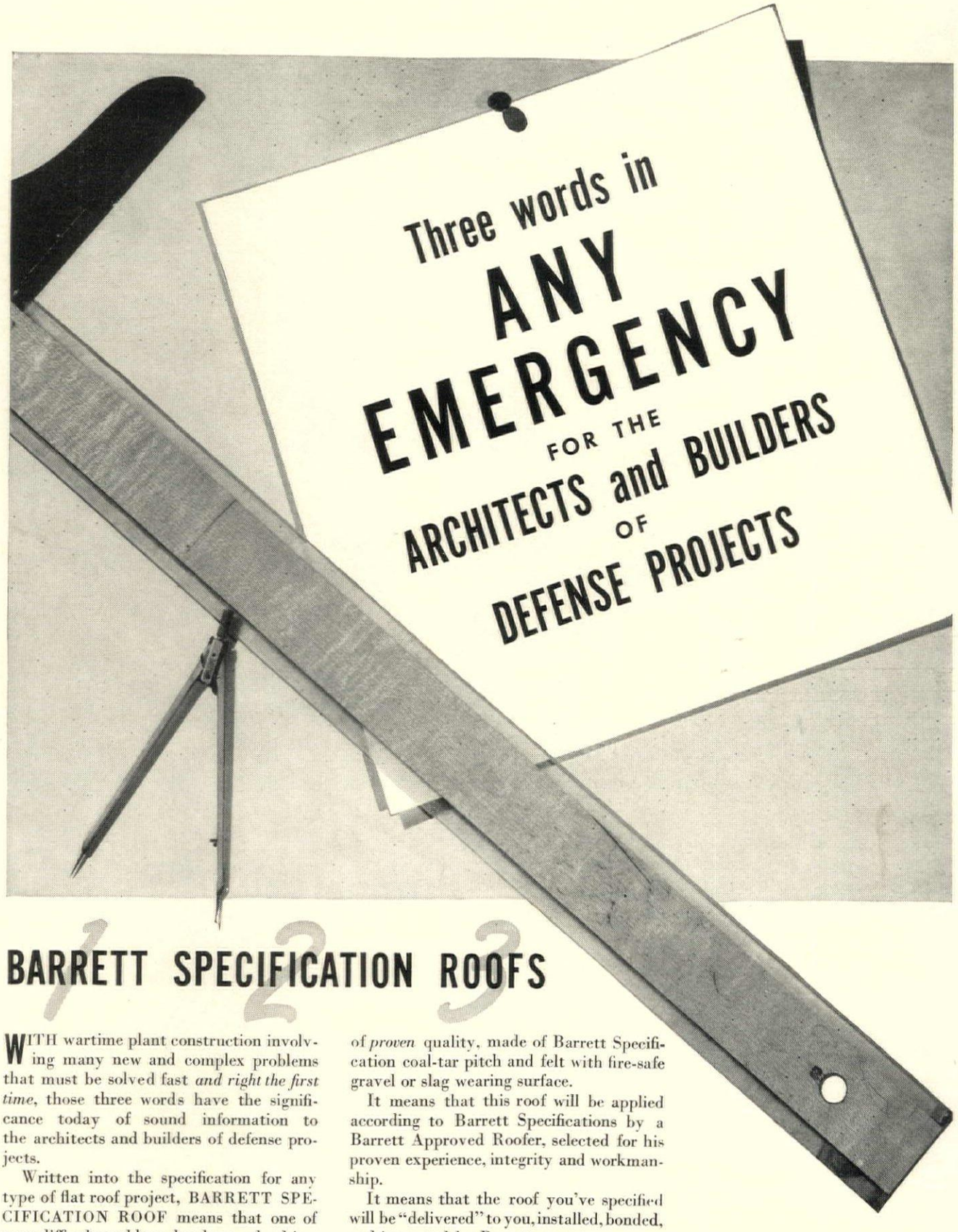
PROVIDES:

1. Maximum Air Mixture.
2. Rapid Temperature Equalization.
3. Perfect Air Distribution.
4. Total Elimination of Drafts.

The Aerofuse Outlet, made in five types for every installation requirement, performs with that efficient perfection so typical of Tuttle & Bailey products. In addition, it is a most unobtrusively attractive ceiling diffuser. Because of the simplicity of its design and the mass production economies possible in its manufacture, the cost is surprisingly low. If you are not specifying the Aerofuse diffuser now — investigate!

T & B

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BARRETT SPECIFICATION ROOFS

WITH wartime plant construction involving many new and complex problems that must be solved fast *and right the first time*, those three words have the significance today of sound information to the architects and builders of defense projects.

Written into the specification for any type of flat roof project, BARRETT SPECIFICATION ROOF means that one of your difficult problems has been solved immediately and completely, in all details of materials and installation.

It means that you have specified a roof of *proven* quality, made of Barrett Specification coal-tar pitch and felt with fire-safe gravel or slag wearing surface.

It means that this roof will be applied according to Barrett Specifications by a Barrett Approved Roofer, selected for his proven experience, integrity and workmanship.

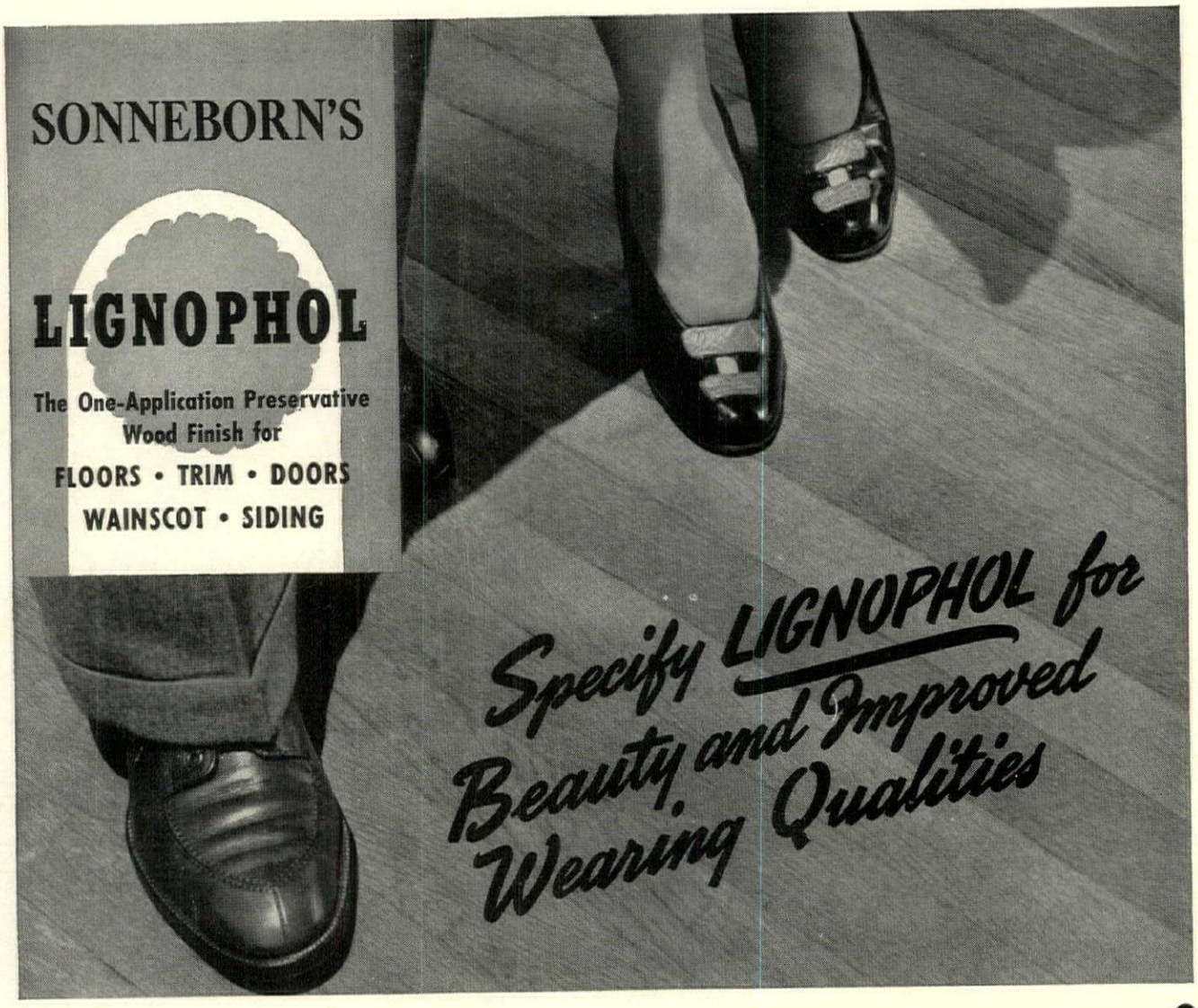
It means that the roof you've specified will be "delivered" to you, installed, bonded, and inspected by Barrett experts.

In short, it means that your entire roofing problem has been solved . . . fast, *and right the first time!*

THE BARRETT DIVISION
ALLIED CHEMICAL & DYE CORPORATION
40 RECTOR STREET, NEW YORK
2800 SO. SACRAMENTO AVE., CHICAGO, ILL. BIRMINGHAM, ALA.

BUILT-UP ROOFS . . SHINGLES AND SIDINGS . . ROLL ROOFINGS . . ROCK WOOL INSULATION . . WATERPROOFING . . BLACKOUT PRODUCTS

Barrett Specification Roofs*
ONE OF AMERICA'S GREAT BASIC BUSINESSES
*Reg. U. S. Pat. Off.



LIGNOPHOL is no ordinary surface finish, but a beautifying and preservative treatment that penetrates into the wood, depositing toughening resins and life-imparting oils which resist moisture, molds, fungi and wood destroying organisms.

Unlike many finishes, Lignophol enhances rather than obscures the natural beauty of the wood. Because of its protective penetration, Lignophol stands up exceptionally well under the severest use in schools, institutions, offices and factories. In homes, it provides lastingly beautiful floors, trim and paneling far beyond the expected service of surface-type finishes.

Lignophol assures substantial economies in time and labor because only a single application is required in order to obtain its full benefits.

Lignophol is available in light brown, medium brown and natural shades to harmonize with the widely used woods for floors, trim and paneling.

Write today for the new Architect's folder giving complete specifications, and factual data based on Lignophol's performance for more than 25 years.

Where Results Count—Count on Sonneborn

L. SONNEBORN SONS, Inc.

88 LEXINGTON AVENUE NEW YORK, N. Y.



"... And I've Been Swamped with Compliments Ever Since!"

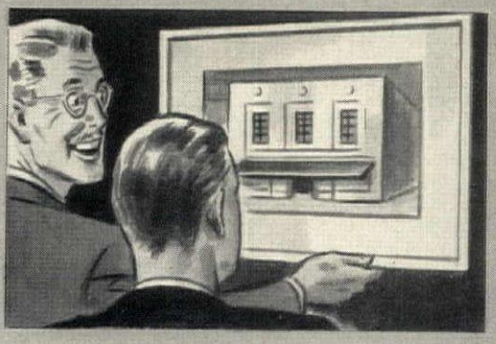
"*Structurally, there was little wrong* with the old Adams Building, but its appearance, inside and out, made it a white elephant on the owner's hands—even with store and office space hard to find."



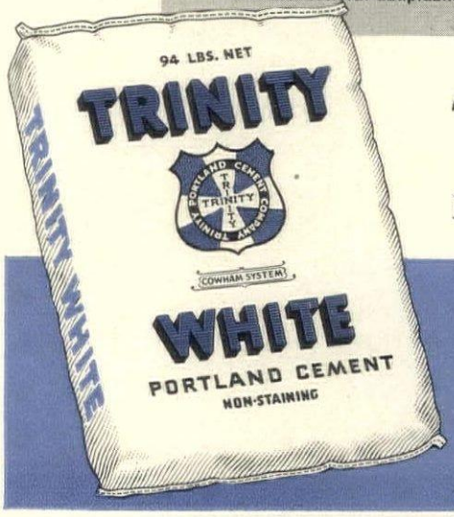
"*My real problem was to do a remodeling job* that involved as few 'critical' materials as possible. I decided that resurfacing with distinctive cast stone would meet every one of my requirements."



"*Cast stone would give me* the combination of distinctive coloring and texture that I was looking for. And, at the same time, it provided the required structural and architectural adaptability."



"*You can see for yourself* how sound my decision was. There's the *new* Adams Building. It's one of the most distinctive and talked-of buildings in town. And every foot of space is rented at a good price."



TRINITY WHITE—the "whitest white" portland cement—will help produce cast stone with a distinctive personality—will produce the *whitest* concrete or mortar.



"AS WHITE AS SNOW"

TRINITY WHITE

PORTLAND CEMENT

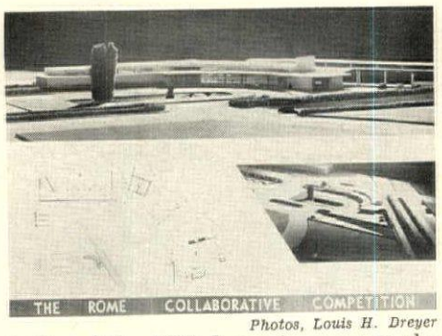
PLAIN OR WATERPROOFED

FORUM OF EVENTS

(Continued from page 66)

COMPETITION

Always good for an impressive showing in competitions, Cranbrook Academy of Art took first prize last month in the Rome collaborative competition. Sponsored by alumni of the American Academy in Rome, the problem is an annual one, requiring the cooperative efforts of student painters, sculptors, architects and landscape architects. This year's program called for the design of a railroad station and bus terminal, and the $200 first prize went to the handsome solution of Ann Sirotenko and Stephen Page, architects and landscape architects, Jack Steele, painter, and Winslow Eaves, sculptor. The influence of



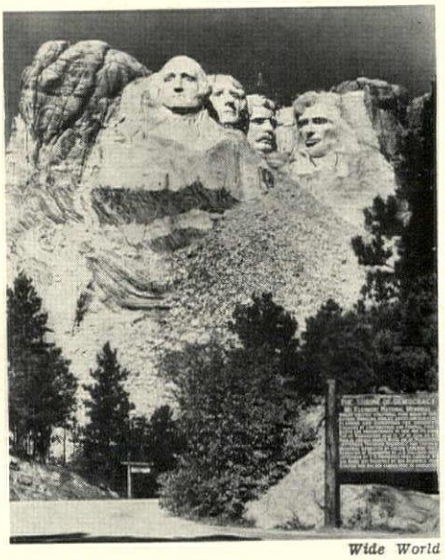
Photos, Louis H. Dreyer



Cranbrook's Saarinens and Milles is very evident and all to the good.

MEMORIAL

Finally approaching completion is the Mount Rushmore Memorial in South Dakota, with its four heroic heads of Washington, Jefferson, T. Roosevelt and Lincoln. The laborious swan song of the late Gutzon Borglum, the memorial probably sets some kind of record for the disfiguration of an otherwise perfectly good mountain.



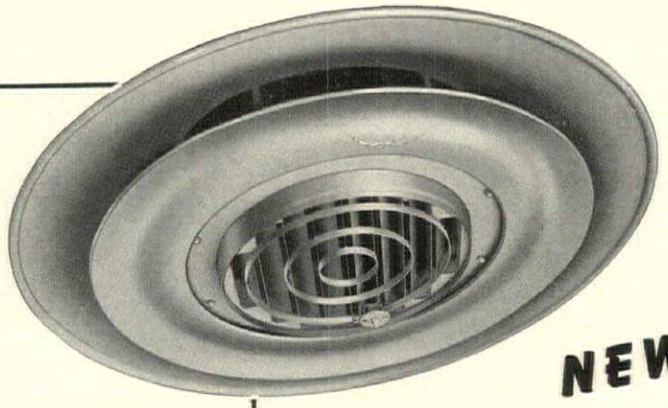
Wide World

SAMPLE BUREAU

Launched at a conspicuously unfortunate time, the new Architects Sample Bureau in Miami nevertheless suggests a procedure that might well be followed in smaller cities. Hitherto such display centers have been confined to a handful of localities. The Miami bureau occupies its own building and shows a very complete line of building products.



(Continued on page 74)

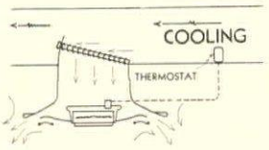


NEW!

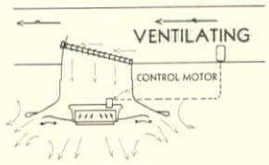
THERMOSTATICALLY CONTROLLED

venturi-flo

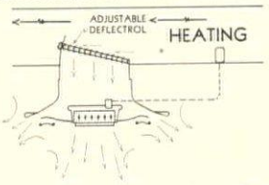
AIR DIFFUSERS



A thermostat in the supply duct positions the blades in a multi-vane damper unit below the throat. With cooling air, the damper is closed, and the air is all diffused outward to fall naturally toward the floor.



With air at ventilating temperature, the damper is partly opened to force a portion of the air in a mostly downward direction. One thermostat in the fan system will control a number of the Air Diffuser units.



To overcome the natural tendency of warm air to rise, the dampers are fully open and the main body of supply air forced directly downward toward the floor. High temperature gradients between ceiling and floor are eliminated.

BARBER-COLMAN originates a much-needed unit — a ceiling-type air diffuser with *automatically controlled* directional air throw. In places with high ceilings where both heating and cooling are required in the course of the year, this new unit will provide correct air distribution under all conditions *without the need for any manual readjustment.*

FOR HIGH CEILINGS

The first installation of these units is going into a huge war materiel plant having 40 feet of clear headroom under the trusses, and with supply air temperatures ranging from 60° for cooling to 100° for heating. Thorough preliminary tests, made in an existing building of comparable height, assure that the desired results will be obtained. Further details may be obtained through your Barber-Colman representative.

BARCOL

BARBER-COLMAN COMPANY

112 MILL STREET • ROCKFORD, ILLINOIS

SALES, INSTALLATION, AND SERVICE REPRESENTATIVES IN PRINCIPAL CITIES

Now, more than ever, you save with STRAN-STEEL!

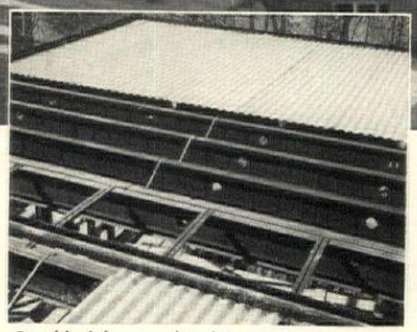


Stran-Steel is used in this 123-family apartment house group at Arlington, Va., designed by Upman & Adams, architects, and owned by Lyon, Inc.

Stran-Steel's ease and speed of erection have combined with its other advantages—fire-safety, permanence and low maintenance cost—to multiply its use, many times over, since the country's war program got under way. Builders on scores of jobs from coast to coast now know at first hand just where and how Stran-Steel saves.

They know that Stran-Steel framing can be assembled with self-threading screws and an ordinary screw-driver, in a fraction of the time usually required. They know that later operations are speeded up too, since the patented Stran-Steel nailing groove, an exclusive feature, permits application of collateral materials without the use of wood bucks. They know that plumbing, wiring and other sub-contract work go in faster when the job is framed with Stran-Steel.

Finally, they are learning that, in addition to its other economies, Stran-Steel *saves steel* by releasing heavier steel members for other vital uses. Work is speeded, economy promoted, all the way down the line. Now, more than ever, *you save with Stran-Steel!*



On this job, completed in 1941, corrugated sheeting laid over the floor joists became the base for a two-inch concrete slab, and a safe working deck while pouring.



Typical of the way in which Stran-Steel speeds construction is the ease with which bridging is applied. It locks over the flange of the joist with a hammer blow.

YOU NAIL TO STRAN-STEEL

Find out about Stran-Steel! For further information on this modern light steel framing, address Stran-Steel Division, Great Lakes Steel Corporation, 607 Shelby Street, Detroit, Michigan.

UNIT OF NATIONAL STEEL CORPORATION

STRAN STEEL

THESE THREE UNITS, COMBINED, FORM ANY INSTALLATION DESIRED

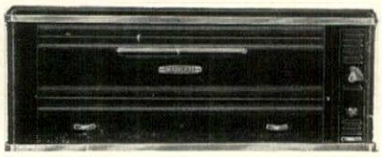
FOR PROMPT APPROVAL

OF BAKING AND ROASTING INSTALLATIONS,

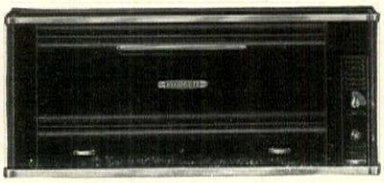
SPECIFY "BLODGETT"!

94 Years of Nationally Known Performance Stand Behind These New Blodgett Ovens!

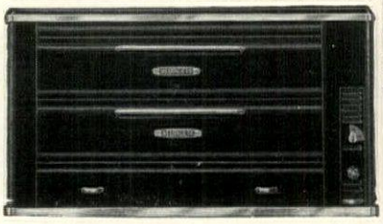
The Single Baking Oven



The Single Roasting Oven



The Double Baking Oven



Tell his dietician, chef or steward that you're specifying a Blodgett Baking and Roasting installation — and there will be no question of your client's okay.

Since 1848, in institutions, hospitals, hotels and restaurants, Blodgett Ovens have been known for quality and quantity of output, under every type of service condition.

Builders, too, Favor Blodgett!

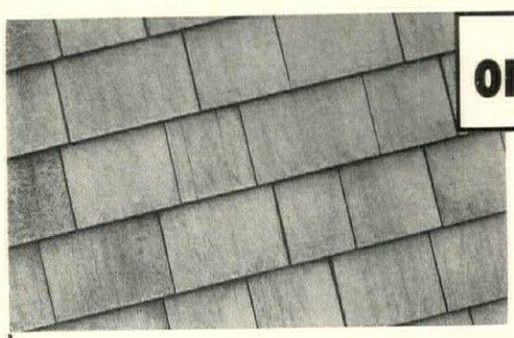
And no wonder — for Blodgett's flexible, sectional design permits easy installation, tailor-made to the job and requiring less floor space.

Write Dept. A for descriptive literature, containing sketches for roughing in, capacities tables, specifications, etc.

THE G. S. BLODGETT CO., INC.

53 MAPLE STREET, BURLINGTON, VERMONT

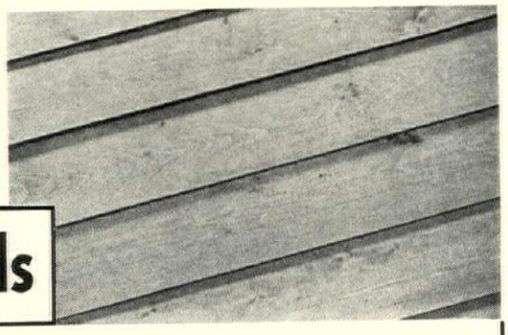
BLODGETT — Makers of Fine Ovens Since 1848



on shingles

or

clapboards



Use Cabot's Shingle Stains

the logical choice for

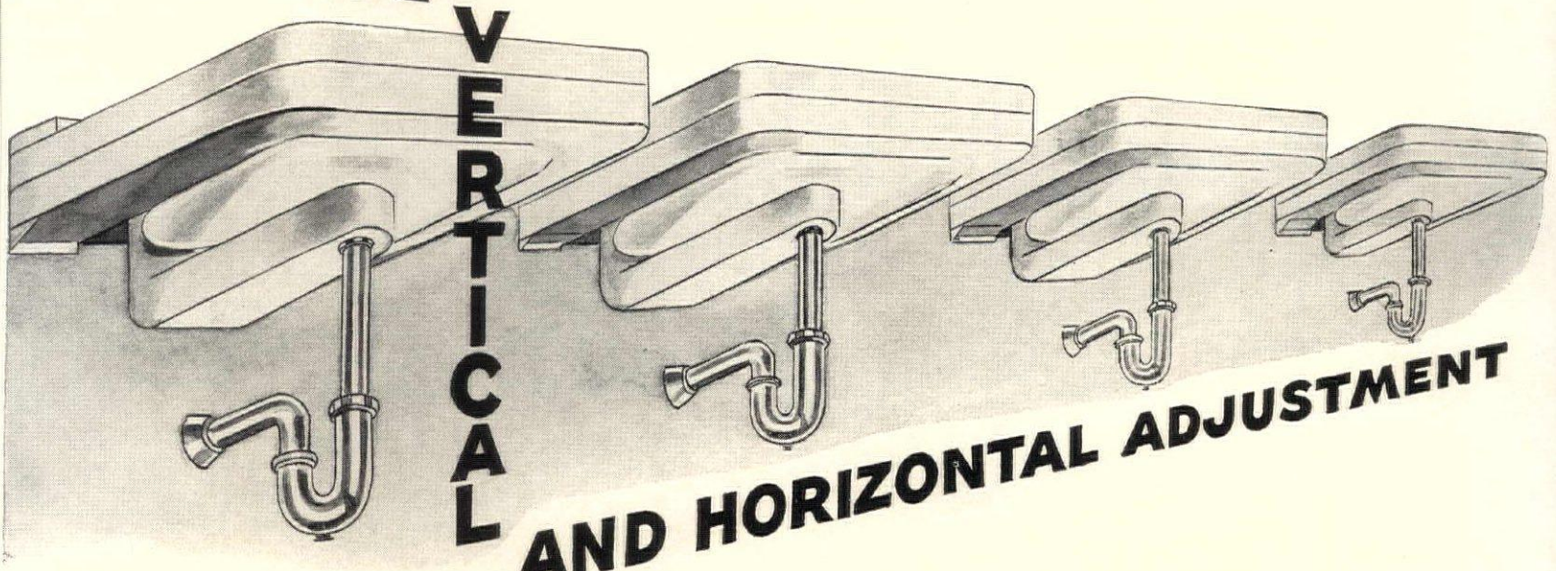
DEFENSE PROJECTS

Cost less than paints. Easier and quicker to apply. Preserve the wood. Give less trouble when conditions force the use of green lumber or hurried construction. Write for free booklet and color card or look in Sweet's. Samuel Cabot, Inc., 1267 Oliver Building, Boston, Mass.

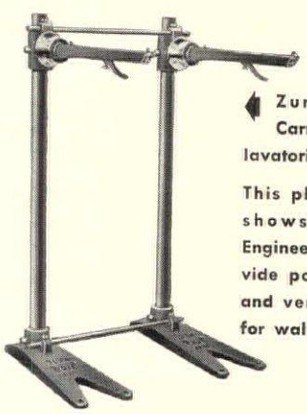


4-Point Protection ON WALL FIXTURE JOBS PROVIDED BY ZURN ENGINEERED CARRIERS

POSITIVE VERTICAL AND HORIZONTAL ADJUSTMENT

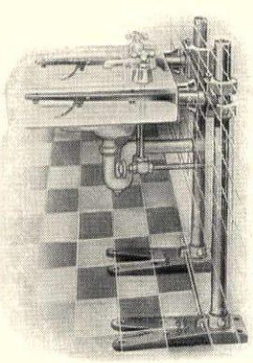


WHEN YOU SPECIFY WALL FIXTURES, SPECIFY ZURN *Engineered* CARRIERS TO SUPPORT THEM



◀ Zurn Engineered Carrier for supporting lavatories.

This phantom view ▶ shows how Zurn Engineered Carriers provide positive horizontal and vertical adjustment for wall type lavatories.



THERE IS A ZURN *Engineered* CARRIER FOR SUPPORTING EVERY TYPE OF WALL FIXTURE

Every wall fixture installation should include a sound solution to the problem of proper support and permanent, positive adjustment. From the standpoint of the certainty and the degree in which they contribute these advantages, Zurn Engineered Carriers, alone, merit specification. They end uncertainty and time-wasting trial and error in wall fixture installation.

Before each Zurn Carrier leaves the factory, it is adjusted for the specific make and model fixture it is to support. As a result, the remaining necessary adjustments to compensate for structural variations on the job are more easily and speedily made. The carrier is correct for the fixture . . . no chance for mismatching the two . . . and no occasion for using undue force in adjustment.

Positive horizontal and vertical adjustment is only one phase of the 4-Point Protection provided by Zurn Engineered Carriers which includes: (1) *No damaging strain on the wall;* (2) *Positive horizontal and vertical adjustment;* (3) *Proper, grief-free installation;* (4) *Perfect, permanent fixture alignment.*

This 4-Point Protection makes Zurn Engineered Carriers just as essential to the enduring satisfaction of the wall fixture installation as the fixtures themselves—*and fully as worthy of specification.*

The Zurn Carrier Catalog contains complete information on all 25 styles of Zurn Engineered Carriers. Get your copy today.

J. A. ZURN MFG. CO. • *Sales Office and Factory:* **ERIE, Pa. U. S. A.**

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BUILDING • PLUMBING DRAINAGE PRODUCTS

Roof to Basement

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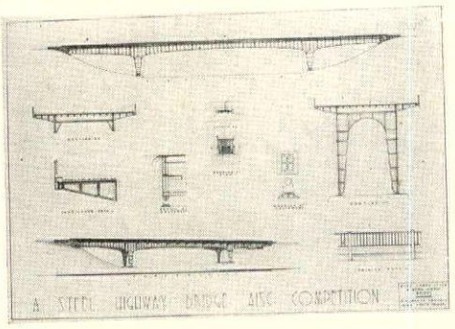
P. S. Please attach to your business letterhead

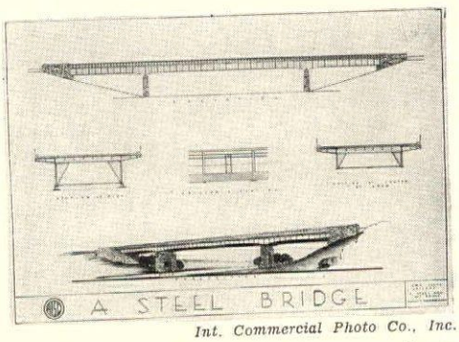
FORUM OF EVENTS

(Continued from page 70)

STUDENT BRIDGES

For a number of years the American Institute of Steel Construction has been awarding prizes and medals to both student and professional designers of bridges as a means of improving the appearance standards for such structures. Student prizes are given out annually on the basis of competitive problems: this year's program called for a highway bridge over a river crossing. To Iowa State, competing with fourteen other schools, went all three of the 1942 prizes: $200 to Everett Thorbrogger, $100 to R. K. Kendall, and $50 to Carlton Mueller. The drawings which took first and second prizes are shown above.





Int. Commercial Photo Co., Inc.

COMPETITIONS

The following announcement has been made by Joseph Hudnut, Professional Adviser for the Fitchburg Municipal Airport Competition:

"Because of the use of critical materials in the construction of the proposed Administration Building. . . , the War Production Board has asked that this construction be deferred for the present. Steel, copper and brass, which would be incorporated in the structure, are vitally needed by our armed forces. . .

"In view of these circumstances, the Airport Authority has decided to postpone for the present the competition for the Administration Building. It is our hope that this postponement may be brief, but, in any case, we shall not proceed until we are assured that the construction of the building would not in any way interfere with the war effort of our government. . .

"Whenever it proves possible to go ahead with the competition, I shall not fail to send a program promptly to each architect who has asked for it. . . "

ANNOUNCEMENTS

Leopold Arnaud, dean of the Columbia University School of Architecture, has been appointed chairman of the Division of Pan American Affairs of the American Institute of Architects. Julian C. Levi and Harold R. Sleeper of New York City and George Harwell Bond of Atlanta, Ga. were named members of the division. This constitutes the United States Section of the Permanent Committee for Pan-American Congresses of Architects and will devote its efforts to Pan-American activities in Architecture, allied arts and town planning. The Division will function in association with the Institute's Committee on Foreign Relations, headed by Philip Goodwin of New York.

PERSONALS

LEO MATZNER, Architect, announces the removal of his offices from 211 West Front Street, Plainfield, N. J. to 1266 Salem Road.

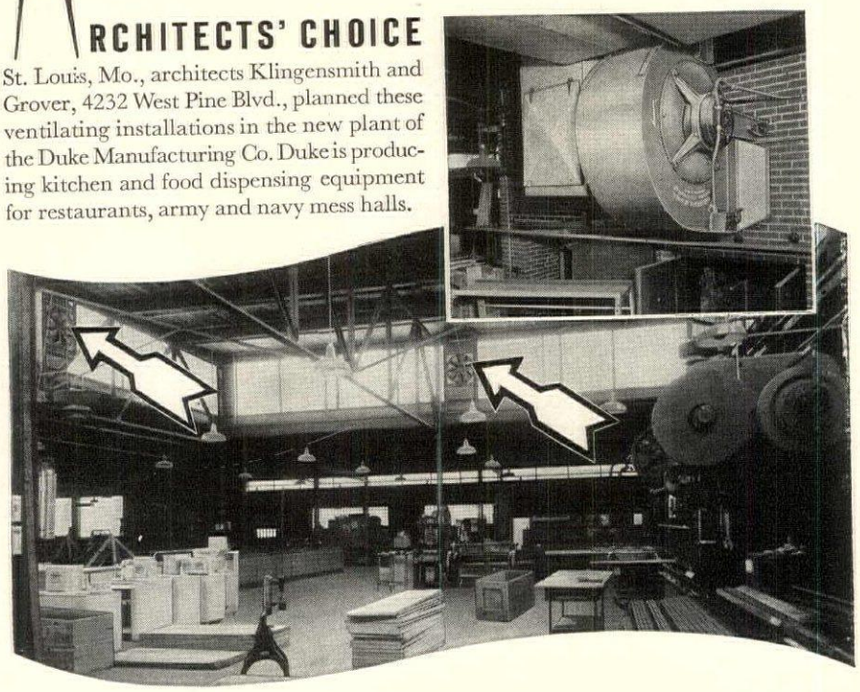
IRVING P. MARKS, Architect, and Milton B. Weissman, Architect, have consolidated their offices and will continue the practice of architecture at 185 Montague Street, Brooklyn, N. Y.

(Continued on page 86)

"We used ILG equipment on this job because we have obtained satisfactory service on many previous installations, and we believe that the 'one-name-plate' guarantee affords valuable protection for the owner."

ARCHITECTS' CHOICE

St. Louis, Mo., architects Klingensmith and Grover, 4232 West Pine Blvd., planned these ventilating installations in the new plant of the Duke Manufacturing Co. Duke is producing kitchen and food dispensing equipment for restaurants, army and navy mess halls.



FOR POSITIVE ALL-WEATHER VENTILATION, four 30-in. ILG Propeller Fans (*two shown above*) were installed in the monitor of the Duke plant. The BC 55-in. blower unit (*inset*) draws air from outside and discharges through heating coil and air filters into the paint and drying department . . . *Send for free catalogs— ILG Propeller Fans, No. 141 — ILG Universal Blowers, No. 241.*

ILG ELECTRIC VENTILATING CO., 2899 N. CRAWFORD AVE., CHICAGO, ILL.
OFFICES IN 41 PRINCIPAL CITIES CONSULT YOUR PHONE DIRECTORY

ILG

Vitalized Ventilation

AND AIR CONDITIONING

AIR CHANGE . . . NOT JUST AIR MOVEMENT!

"Congratulations on a Good START ...let's make it a Strong FINISH"



Let's give Defense Homes strong Home Defense with White Lead

Today architects must "do the impossible"... give America defense homes *fast* ...at restricted prices...yet provide the charm and quality that make houses *homes*. And they've made a real start.

It's a man-size job... takes ingenuity and skill aplenty—not only in design and construction, but particularly in the selection of materials. For, despite shortages and the price limitation, these homes must be built to stand up.

We don't have to tell you that good paint is the best life insurance a house can have — or that good paint's other name is Dutch Boy White Lead. You know from personal experience that it hangs on with real Dutch tenacity . . . never cracks and scales.

But, because of the price ceiling on defense homes, we do want to remind you that, in spite of its well-established, well-founded reputation for high quality, paint made from Dutch Boy Paste Lead is actually in the *low price bracket*. In fact it's not only low priced per mixed gallon of paint but downright *thrifty* per year of protection.

And since we're talking about economy remember, too, that Dutch Boy can be used for practically any painting purpose. It's suitable for either two- or three-coat painting—and gives topnotch results on any surface: wood, brick, stucco, concrete or plaster.

Now that we've made such a good start on this defense housing job—let's make it a strong *finish*—with Dutch Boy!

New Dutch Boy Paint Unsurpassed for Two-Coat Sealing and Hiding

Where ready-to-use paint is wanted, we suggest you give professional consideration to the new Dutch Boy Pure White Lead Paint. It combines the stubborn Dutch sturdiness of White Lead with sealing, hiding and whiteness unexcelled by any two-coat combination on the market. Comes in two special forms—Exterior Primer and Outside White—both pure white lead, all ready to spread. Used together they give results you'll be proud of, on new or old wood.

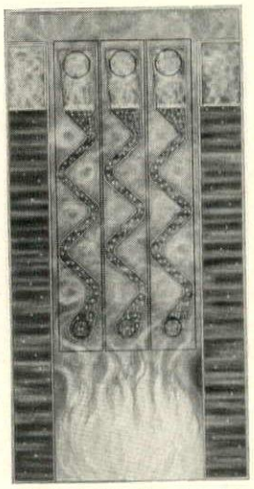


NATIONAL LEAD COMPANY
New York, Buffalo, Chicago, Cincinnati, Cleveland, St. Louis, San Francisco, Boston (National Boston-Lead Co.), Pittsburgh (National Lead & Oil Co. of Penna.), Philadelphia (John T. Lewis & Bros. Co.).

SPECIFY DUTCH BOY PURE WHITE LEAD

Mr. B. Smart Says:

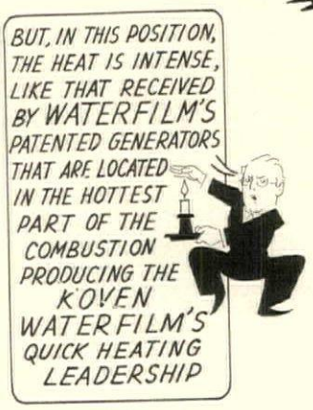
QUICK HEAT MEANS ECONOMY
THIS CANDLE TEST EXPLAINS THE KOVEN WATERFILM BOILER'S QUICK HEATING LEADERSHIP



The illustration above shows how WATERFILM'S zig-zag Patented Generators present their surfaces at right angles to the heat travel the same as the hand does in Position #2 of the Candle Test.



Position #1



Position #2

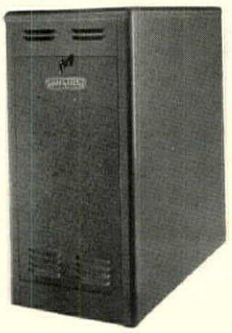
OTHER POPULAR KOVEN WATERFILM BOILER FEATURES:

RUGGED STEEL CONSTRUCTION.
SMART DOMESTIC JACKETS.
IDEAL FOR AUTOMATIC FIRING with Oil, Stoker or Gas.

MODELS:

There's a KOVEN WATERFILM to meet every prospect's needs:

THE DE LUXE MODEL for the Better Grade House, THE ONE PIECE MODEL for Larger Installations, the MODEL "O", jacketed or unjacketed, for the Small Home and the SECTIONAL SERIES IS IDEAL FOR INDUSTRIAL AND APARTMENT HOUSE INSTALLATIONS.



De Luxe Model

WATERFILM BOILERS, Inc.

154 Ogden Avenue, Jersey City, N. J.
PLANTS: Jersey City, N. J. and Dover, N. J.

MURAL-TONE CASEIN PAINT

Here's the ideal paint for defense construction



★ SPEED

Mural-tone, applied with a wide brush, eats up wall space—and it's ready to go to work 3 days after the trowel. No waiting for walls to dry.

★ ECONOMY

Time saved is money saved—on labor. Mural-tone helps save vital days in our defense program. AND—it costs less!

★ BEAUTY

Why not—when it costs no more whether it's a factory or a home. Mural-tone's beautiful clear colors give a lift to morale.

Color cards and full information are yours—by AIRMAIL—*if you wish. There's no time to lose!*

SEE OUR CATALOG IN SWEET'S

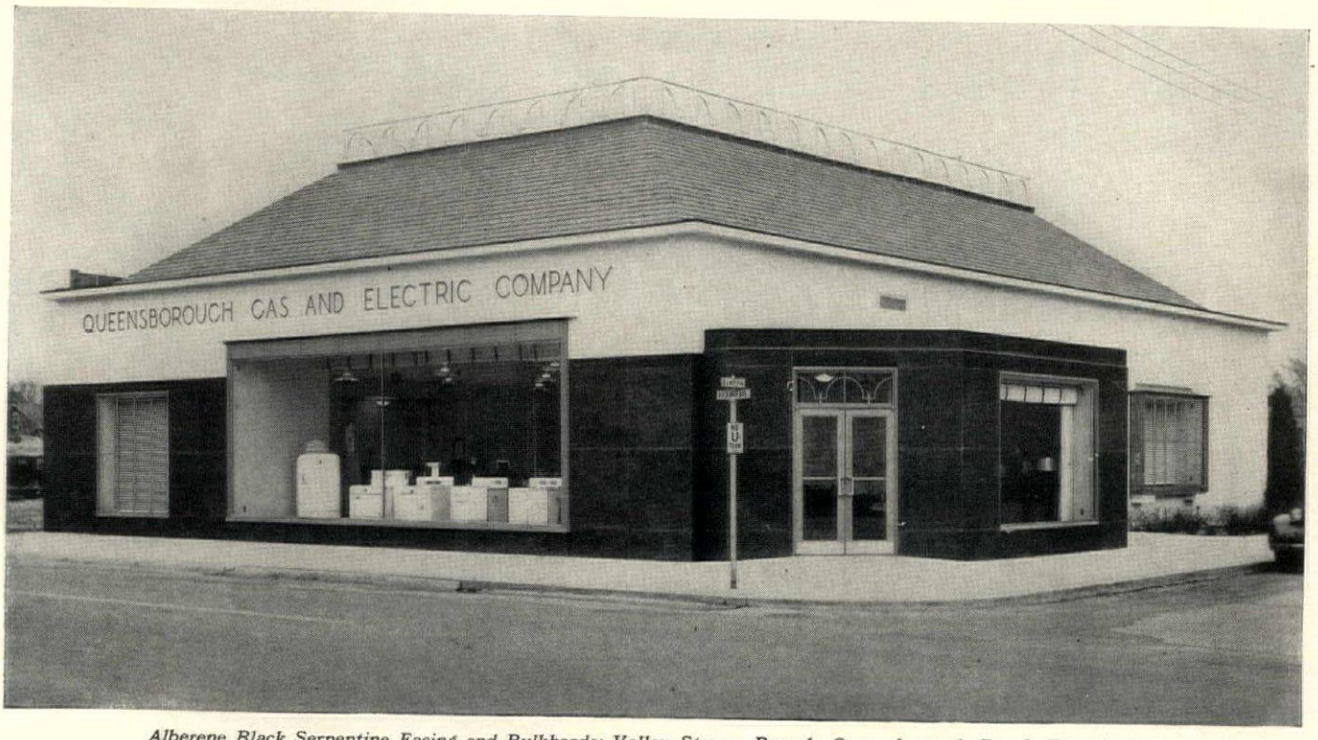


THE MURALO COMPANY
INCORPORATED
574 Richmond Terrace
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FACINGS

OF THIS POPULAR DARK STONE

are distinctive . . . but not expensive



Alberene Black Serpentine Facing and Bulkheads; Valley Stream Branch. Queensborough Gas & Electric Co.; Voorhees, Walker, Foley & Smith, Architects.



Black Serpentine Toilet Stalls installed when Home Insurance Building, New York, was remodeled: Voorhees, Walker, Foley & Smith, Architects. Relatively large sizes are required for such work and Black Serpentine can be obtained readily and economically.

and shipments can be made promptly!

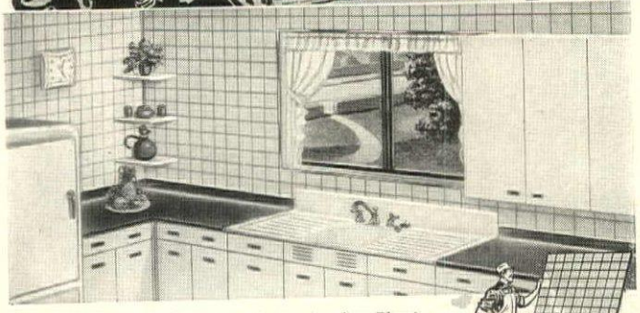
Voorhees, Walker, Foley and Smith, Architects, New York, designed this distinctive Valley Stream Branch Building for Queensborough Gas & Electric Co. Permanent, non-reflective Black Serpentine was used for facing and bulkheads. The toughness and density of the stone made the use of 7/8" thin sections possible; an added economy. A request on your business letterhead will bring you samples, conveniently boxed, showing the range of stone, including black and mottled dark blues and greens. Please address Alberene Stone Corporation of Va., 419 4th Ave., New York. Sales Offices in Principal Cities. Quarries and Mills at Schuyler, Virginia.

Alberene BLACK SERPENTINE

MODERATE IN COST . . . NEGLIGIBLE IN UP-KEEP

"I'M PANELING WITH PLASTIC ...because it has the speed war housing needs!"



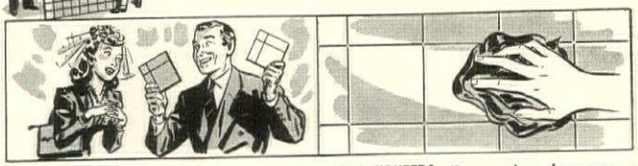


HIGH SPEED! Made in large sheets, Barclay Plastic-Coated Panels are easy to handle, cover large areas in little time. Sheets are readily sawed and nailed. Paneling a room takes but a few hours, may be done by anyone with ordinary carpentry skill.





LOW COST! *Prefabrication*—that's the economy secret of Barclay Panels. Under mass production methods, real plastic is bonded to the surface of tempered fibre board. Result: Panels with all the beauty and durability of modern plastic—at a surprisingly low cost.



STYLED-COLORS! Morale means much to civilians, too! They need color as well as comfort and convenience in their homes. Barclay panels, because they are plastic-coated, have all the beauty and color of plastic. 12 smart colors are standard. Others on special order.

LOW UPKEEP! Renovating becomes a thing of the past when a room is paneled with Barclay! Its tough, plastic surface keeps its glossy-smoothness, rich-looking color, year after year. It won't chip, crack, craze or peel. It cleans easily with a damp cloth!

TODAY'S building standards are stiff. War workers want beauty, modernity and convenience in their homes. The Government demands low costs. Time is vital . . . high-speed construction the keynote. That's why architects, builders and dealers are *sold* on Barclay Plastic-Coated Panels for walls and ceilings. In new home building, old home remodeling, these "panels of plastic" meet every construction and use requirement for kitchens, baths and playrooms; for cantonments, hospitals and countless other wartime building projects. Send the coupon for *free* samples. *See our catalog in Sweet's.*

BARCLAY PLASTIC-COATED PANELS

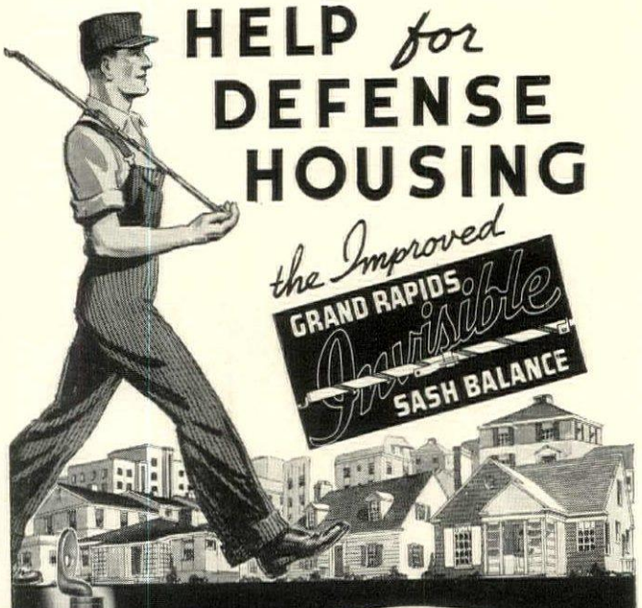
Barclay Manufacturing Company, Inc., Dept. AF-4, Bronx, N. Y.
Please send me free samples of Barclay Plastic-Coated Panels, and literature.

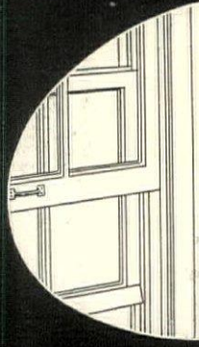
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Address.....

City.....State.....

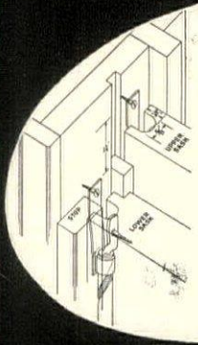
HELP for DEFENSE HOUSING





NO TAPES OR CABLES, NO EXPOSED TUBES

Entire balance moves with sash. Always invisible regardless of window position. Tapes and cables eliminated. No interference with neat painting job. No screws or trim to remove for tension adjustment.



EASILY INSTALLED

Only 6 simple steps. Frames require no machining. No cuts in sash, except full height, round-bottom groove in sash stiles. No blocks to fasten on jambs.



ENDORSED FOR FEDERAL HOUSING PROJECTS

Contractors using upwards of 1,000 sets of INVISIBLE balances on government housing projects, endorse them for ease and speed of installation and smooth, efficient performance.

Write for

GRAND RAPIDS Invisible SASH BALANCE

NEW 1942 CATALOG No. 42-SB-2

GRAND RAPIDS HARDWARE COMPANY
GRAND RAPIDS • • MICHIGAN



Portion of new defense plant which is covered with over 1,000,000 sq. ft. of *Featherweight* Precast Concrete Roof Slabs. Architect, Albert Kahn, Inc., General Contractor, Thorgersen & Ericksen Co.

Let's Look Beyond . . .

DEFENSE WORK is the order of the day. Our entire effort is now bent toward that end . . . but when that work is done, all of us will again be building and re-building for the future.

Meanwhile, it is our desire to maintain uninterrupted contact with you and the host of other valued friends that Federal Roofs have made during the past 35 years.

Yes, Federal served also in World War I, and the permanent fireproof, no-maintenance roof decks we provided at that time for scores of industrial plants, are still going strong. They have continued to protect peace-time industry faithfully and now again are in service on emergency production, as fit for the job as ever.

That is but one of the many advantages of a Federal Roof—it represents a true investment in *permanence*—reaches way out into the future to bring *added* returns on that investment.



The slabs are quickly laid directly on the steel roof purlins, in any weather. Occupant can get under cover fast and into production at once.

Featherweight PRECAST CONCRETE ROOF DECK

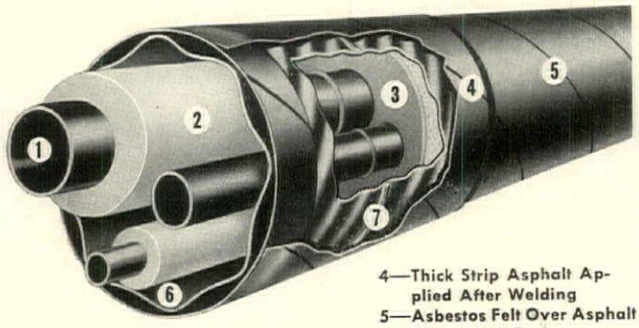
Made, Laid and Guaranteed by

FEDERAL-AMERICAN CEMENT TILE CO.

608 South Dearborn Street — *For Over 35 Years* — Chicago, Illinois

Sales Offices in Principal Cities . . . . Plants Near CHICAGO - NEW YORK - PITTSBURGH - BIRMINGHAM

PRE-FABRICATED



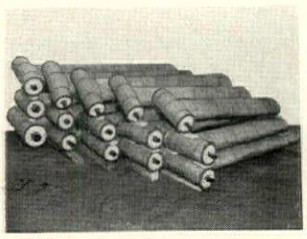
1—Steam Pipe
2—Sectional Pipe Covering
3—Pipe Support
4—Thick Strip Asphalt Applied After Welding
5—Asbestos Felt Over Asphalt Coated Hel-Cor
6—Air Space
7—Butt Welded Construction

UNDERGROUND STEAM SYSTEMS DELIVERED COMPLETE . . . IN RECORD TIME!

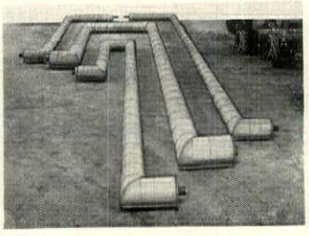
Pre-fabrication by Ric-wiL means:

- ★ Cost reduction! . . . turning out mass-produced Insulated Underground Steam Pipes almost overnight—at minimum and definite predetermined cost to the contractor and user.
- ★ Time saving! A steam system "on the drawing boards" carries no steam. RIC-WIL "lays it on the line" NOW—when and where you need it!
- ★ Controlled factory assembly-line methods which have delivered over 800,000 lineal feet of Ric-wiL Units, in pipe sizes from 1″ to 16″ diameter, in the past 18 months, principally for government defense work.
- ★ Units of basically correct design, including expansion fittings and all parts, which are standardized and machine-made with precision workmanship. Construction of Ric-wiL fits into the working practice of various trades in the field, radically cutting time and cost on the site. No bottlenecks—no confusion.
- ★ The result is a Pre-sealed System, in the form of a truckable Unit, completely finished in the shop, with nothing extra to buy, ready to install . . . and turn on the steam!

FOR ACTION—wire us for name of nearest Ric-wiL representative. Write for latest Ric-wiL Bulletins.



Hairpin expansion loops for flanged units



Expansion bends with offsets

RIC-WIL INSULATED PIPE UNITS
THE RIC-WIL CO., CLEVELAND, O.
Agents in Principal Cities



FOR DEFENSE HOUSING



G-E GAS FURNACES

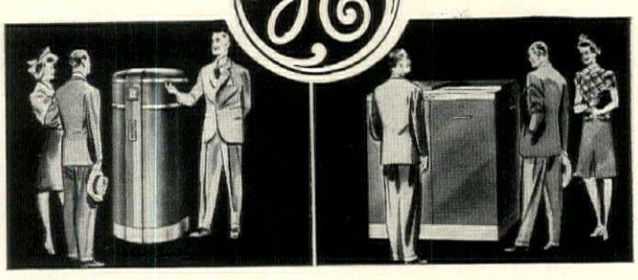
Highly efficient . . . factory packaged . . . low in cost!

You can tuck this G-E Gas Furnace away in a closet, or any small area. The smallest size occupies only 3½ sq. feet floor space. It's approved by Underwriters' Laboratories, Inc. for installation with only 2 inch wall clearance!

The G-E Gas Furnace comes all in one package—completely factory wired and assembled. It can be installed by any sheet metal contractor. Three different capacities: 48,000, 72,000, and 96,000 Btu per hour.

Would you like further data and prices on these small defense housing units—or on other equipment in the complete G-E line? Call your G-E Distributor (see Classified section of your Telephone Directory) or write to General Electric, Division 2134, Bloomfield, N. J.

TURN TO GE

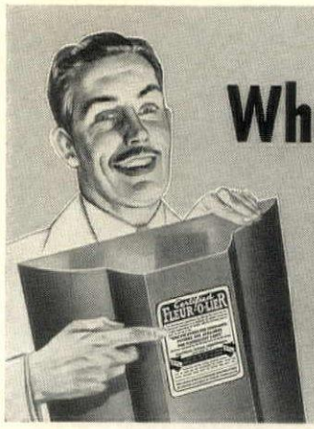


For radiator or warm air heat, using oil or gas

G-E Oil Furnaces in 7 different sizes for various heating capacities. Year 'round domestic hot water coil. Also G-E Gas Furnaces.

G-E Winter Air Conditioners (Oil or Gas Fired) circulate *conditioned* warm air heat—filtered and humidified.

GENERAL ELECTRIC



When you specify FLUORESCENT lighting it will pay you to know the ANSWERS to these QUESTIONS!

What are Certified Fleur-O-Liers?

FLEUR-O-LIERS are fluorescent lighting fixtures made and certified to definite high standards of performance, construction and service.

Who Certified Them?

Famous, impartial Electrical Testing Laboratories tests random samples of every industrial and commercial design submitted. If the unit tested meets the 50 exacting standards (set up by MAZDA lamp makers for better light—better service) it is CERTIFIED and permitted to bear the FLEUR-O-LIER label.



Suppose They Are Certified... How Does That Help Me?

You have assurance of strict adherence to features your clients want and need, such as flicker correction, high power factor (over 85%), ease of maintenance, durability and safety and efficient lighting performance.

What About Ballasts and Starters?

All FLEUR-O-LIER fixtures have CERTIFIED ballasts and starters, which assure reliable, balanced operation and safe, satisfactory service.

Won't I Get This in Any Fixture?



Possibly. But you *can* be sure of getting these important features in any fixture labelled FLEUR-O-LIER, because the label tells you that the fixture meets definite high lighting and service standards.

How Can Fleur-O-Liers Help on "Today's Big Job"?

FLEUR-O-LIERS give better light to speed production, cut down errors and waste, with easier, faster, more comfortable seeing. They're designed and built to give reliable, continuing performance—not only for wartime's tremendous task but for the long pull ahead.

Who Can Supply Them?

FLEUR-O-LIERS are made by more than 35 leading fixture manufacturers in over 100 different types, sizes and designs and every unit carries the FLEUR-O-LIER guarantee. Ask your electrical distributor, contractor for details of FLEUR-O-LIERS handled. Your local electric service company will be glad to work with you in planning installations to meet your clients' specific needs. Use the coupon below to get FREE new booklet and list of manufacturers.



FLEUR-O-LIERS

CERTIFIED FIXTURES FOR FLUORESCENT LIGHTING

Participation in the FLEUR-O-LIER MANUFACTURERS' program is open to any manufacturer who complies with FLEUR-O-LIER requirements

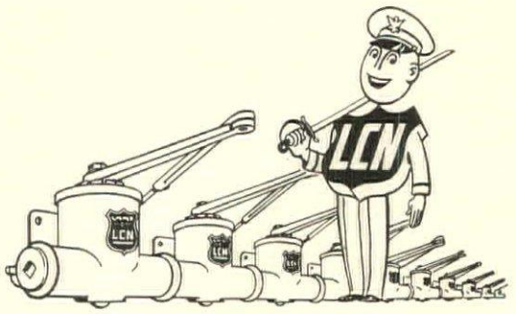
Fleur-O-Lier Manufacturers • 2119-4 Keith Bldg., Cleveland, O.

Please send me FREE new booklet "50 Standards for Satisfaction," together with list of Fleur-O-Lier manufacturers.

Name _____

Address _____

City _____ State _____



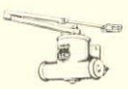
High Quality and Conduct are "Drilled" into LCNs

● From raw materials to finished product, LCN door closers are brought up to perform with precision and endurance in the discharge of their duties. Now this LCN production "discipline" is also serving Uncle Sam. This is why, even with night-and-day operation, we are asking our regular customers to order for essential requirements only.



The amount of finished stock on hand is limited, and can be replenished only as we are able to do so without interfering with the drive to win the war.

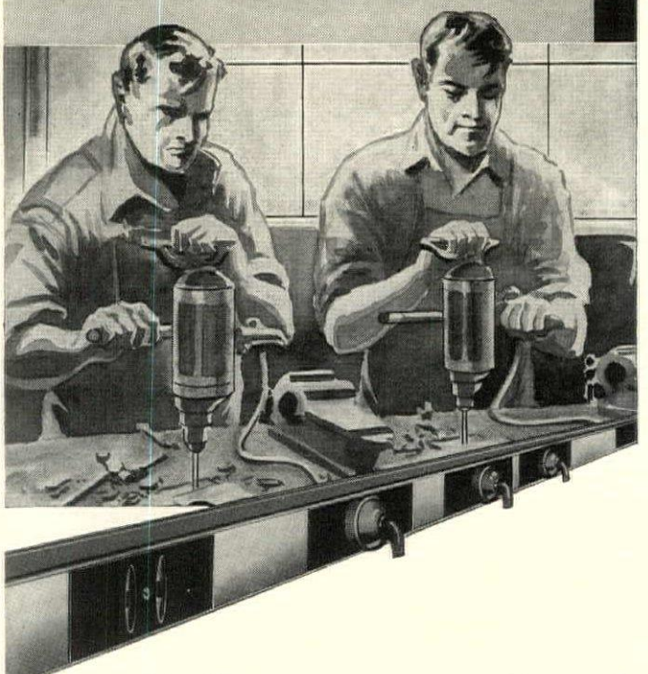
We have been making quality door closers for a long time—and making friends in the bargain. With your cooperation and understanding, we'll do our part of the big job and go back to full time on door closers when the big job's done. LCN, 466 West Superior Street, Chicago.



To be Sure—Specify

DOOR CLOSERS BY LCN

WHEN two MEN ARE WORKING WHERE one WORKED BEFORE . . . it's time to install PLUGMOLD



FOR FURTHER INFORMATION SEE OUR CATALOG IN SWEET'S

We offer this as a suggestion to architects working on industrial or service buildings under the National Defense Program.

PLUGMOLD is such a simple, obvious way to provide plenty of handy convenience outlets along assembly or inspection benches . . . in engineering departments . . . around laboratory tables . . . and in offices . . . that plant men who have once seen its advantages wonder why they never thought of it before. Certainly this is a TIME-saver, STEP-saver and WORK-speeder that will pay for itself many times over in busy defense industries. Many architects are enthusiastic about its possibilities.

Of course, Plugmold is also the ideal convenience wiring system for homes, schools, stores, offices and especially hotels.

Let us send further information.

THE WIREMOLD COMPANY, HARTFORD, CONN.

PLUGMOLD

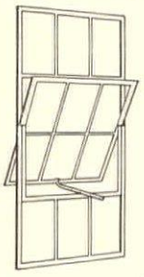
PLUG-IN-ANYWHERE WIRING SYSTEMS

by WIREMOLD

MORE OUTLETS for MORE OUTPUT



To Keep America AMERICAN!



Three shifts . . . 24 hours a day! For over a year Ceco has maintained an "all-out" production schedule on defense orders. This night picture of Ceco's Chicago manufacturing division plant is mute evidence of Ceco's regard for America . . . and the need for keeping it *American!*

Aircraft plants . . . arms plants . . . homes for defense workers . . . practically every conceivable type of defense construction project has been built with one or more Ceco products. Many of the plants which today are turning out the implements for ^merica's war of machines were yesterday rushed to completion with Ceco products delivered promptly by Ceco's alert service organization. Every American wants to help America win the war, and Ceco craftsmen are doing their part well. At the same time, Ceco's policy of continued *improvement* and *progress* is developing even better-than-ever Ceco products!

Ceco STEEL *Windows*

Sunshine and fresh air for tomorrow's better living

CECO STEEL PRODUCTS CORPORATION, MFG. DIV., 5701 W. 26th ST., CHICAGO

Other Ceco products—

Metal Frame Screens	Metal Weatherstrips	Meyer Steelforms
Commercial, Industrial,	Metal Lath & Accessories	Adjustable Shores
Casement & Basement	Steel Joists & Roof Deck	Column Clamps
Windows	Concrete Reinforcing Bars	Welded Fabric

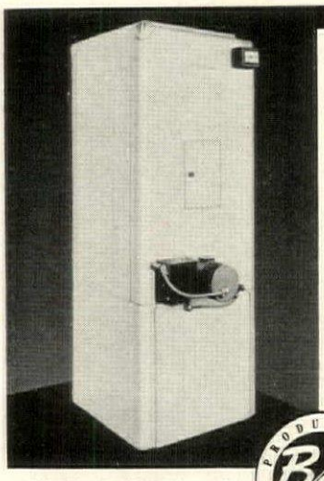
GET THE NORGE BID



BEFORE YOU PLACE HEATING CONTRACTS FOR DEFENSE HOUSING!

You'll discover that for no more, and most likely for less, you'll be able to specify the highest quality, lowest cost, automatic warm air furnaces ever designed. Thousands of installations have proved to builders and home owners, alike, that no other heating equipment can compare to Norge in performance and price.

Sheet metal and heating contractors who install Norge Oil Units are qualified to do the job right. The Norge line is the most complete, and adaptable to any specifications or type of housing. *All units are packaged, factory-wired and factory-assembled for quick, low-cost installation.* Write Norge for full details today!

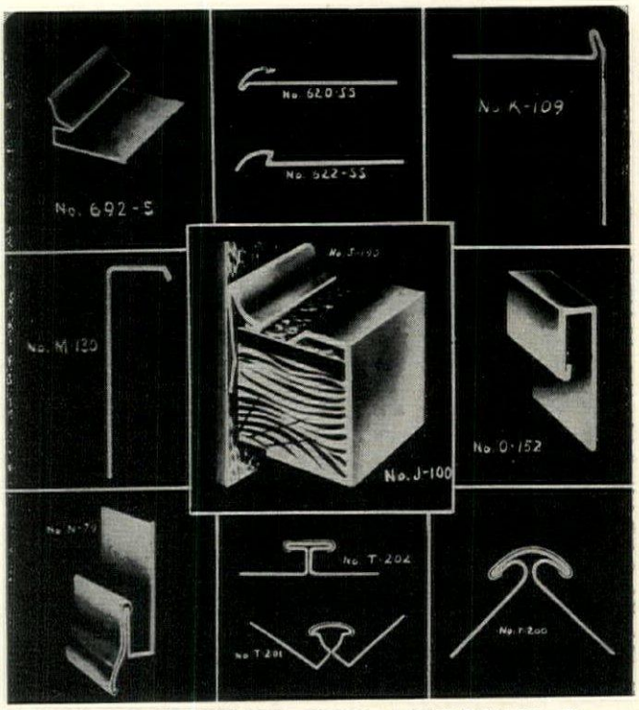


ONE OF MANY LOW COST NORGE OIL UNITS

MODEL OD-70, blower and furnace. Takes 26 inches square floor space. Fully approved for all Government Agency loans. Send for specifications on complete line.

NORGE HEATING and CONDITIONING DIVISION
Borg-Warner Corporation
12345 Kercheval Ave.
Detroit, Michigan

See **NORGE** *Before You Buy*

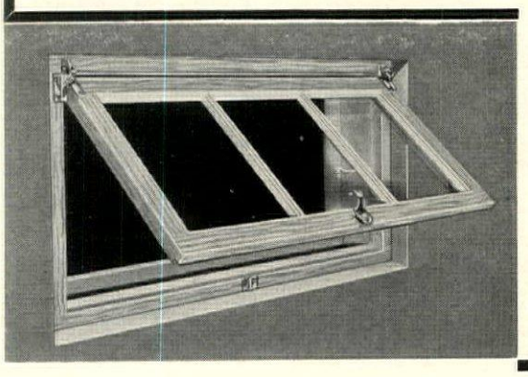


Full line of STAINLESS STEEL MOULDINGS. Prompt deliveries of all shapes, sizes, patterns, and designs.
FORGE AHEAD with FORD . . . and get ahead with the job!
Write for catalog.

FORD METAL MOULDING COMPANY
329 EAST 45TH STREET NEW YORK CITY
A RELIABLE SOURCE OF SUPPLY

Conserve Steel

Specify **WOOD BASEMENT WINDOW UNITS**



Outstanding in quality and low in price, GREGG Basement Window Units are economical and ideally suited for low-cost dwellings. Toxic treated to give permanent and lasting satisfaction. Completely set up, ready to install.

Unit consists of frame, adjustable sash to permit free play, interchangeable screen and storm sash. No hardware extras to buy or labor to perform.

10x12 (masonry opening 2-11⅝x1-5¾) **$3.31** each
Wgt. 28 lbs. each. 2 units to pkg. F.O.B. NASHUA

Sold only through recognized dealers. Send check less 2% with order to avoid credit delay. Catalog on request.

GREGG & SON

Manufacturers of Quality Woodwork since 1719
NASHUA NEW HAMPSHIRE

Yes, these walls are Birch
MENGEL BORD!



HERE'S as nice a child's room as you're ever likely to see—a room that's rich with the color and texture of *natural hardwood,* a room that will easily withstand the hard knocks and dirty little hands of childhood—yet a room that you can reproduce in any small home or Defense Housing Project!

Even in this day of cost-restriction on building, Mengel Bord can open up entirely new decorative possibilities for *any* builder. It's made in big 48″x96″ panels, ¼″ thick. It's resin-bonded —moisture-resistant. It's genuine hardwood throughout—easier to finish, free from grain-raising. It's made with faces of Gum, Mahogany, Walnut, Birch or Oak—and with the grain running the *long* way! It's available, through jobbers, from *any* dealer—*now*—and at prices so low you'll hardly believe them possible!

Let us send you all the facts today. Once you know, you'll never be satisfied with anything else! Use the coupon for convenience.

The Mengel Company, *Incorporated*
1126 Dumesnil Street
Louisville, Ky.

Gentlemen: Please send me full information about Mengel Bord ☐ . . . Also about Mengel Flush Doors ☐.

Name_____

Address_____

City_____ State_____



INDUSTRIAL LIGHTING SPECIALISTS

Even in these war-busy days, a 21st birthday seems important enough to warrant a little celebration . . . and we have been at this lighting business now since the beginning of Warren Harding's administration, way back in the "good old" flapper-and-speakeasy days.

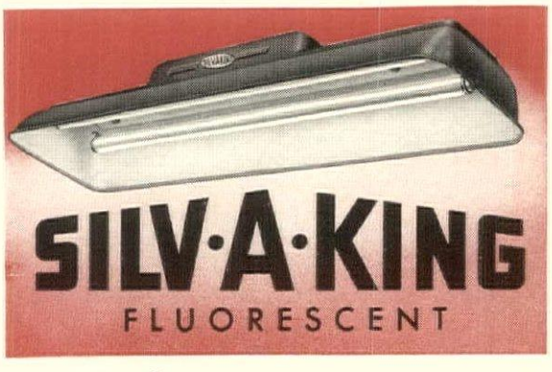
As specialists in the research, design and fabrication of equipment for the broad fields of industrial, commercial and flood lighting, we have developed many dependable ways to control incandescent, mercury vapor, fluorescent—*and now the new RF*—light sources to achieve maximum efficiency. Why not put *your* lighting problems up to a specialist? Bright Light Reflector Co., Inc., 1037 Metropolitan Avenue, Brooklyn, N.Y.

Quality and dependability through two decades have linked the Silv-A-King name with such famous names-in-industry as:

AC SPARK PLUG • BETHLEHEM STEEL • BUICK • CHEVROLET GENERAL MOTORS • FISHER BODY • INTERNATIONAL HARVESTER JONES & LAUGHLIN STEEL • PITTSBURGH PLATE GLASS RUPPERT BREWERY • WARD BAKING

and many others

Write for these Silv-A-King Lighting Guides: LG1—Fluorescent, or LG2—Incandescent.



MAKES *Light* WORK FOR YOU

FORUM OF EVENTS

(Continued from page 74)

DIED

CHARLES R. LAMB, 82, architect, in New York City. Mr. Lamb specialized in ecclesiastical architecture and memorial and historical art. He was architect for the Dewey Arch erected in Madison Square and the Court of Honor of the Hudson-Fulton Celebration in 1909. Other examples of his work include the Sage Memorial Chapel at Cornell University, the Lakewood Memorial Chapel, Minneapolis; various structures and decorations in the Cathedral of St. John the Divine, the Episcopal Cathedral, Denver; Church of the Ascension, Pittsburgh; and St. Paul's Episcopal Church, Richmond. Mr. Lamb had been vice president of the Architectural League, National Sculpture Society and American Fine Arts Society, president of the Art Students League and Municipal Art Society, former secretary of the Society of Mural Painters and a trustee of the National Arts Club.

CHARLES W. ROMEYN, 88, architect, in New York City. Mr. Romeyn was the oldest member of the American Institute of Architects, which he joined in 1885. He began his career in New York with William B. Olmstead, designer of Central Park, and retired 28 years ago after having designed many buildings in New York. Mr. Romeyn had been a member of the Architectural League of New York since 1893 and was made an emeritus life member in 1932.

THOMAS W. LAMB, 71, architect. Mr. Lamb was born in Dundee, Scotland. He studied architecture at the Cooper Union Institute and was for a time a civil service building inspector. Notable among his designs were Madison Square Garden, the Pythian Temple and the Capitol and Rivoli theatres in New York City. His more recent work included all New York Trans Lux theatres, the International Casino and several apartment hotels.

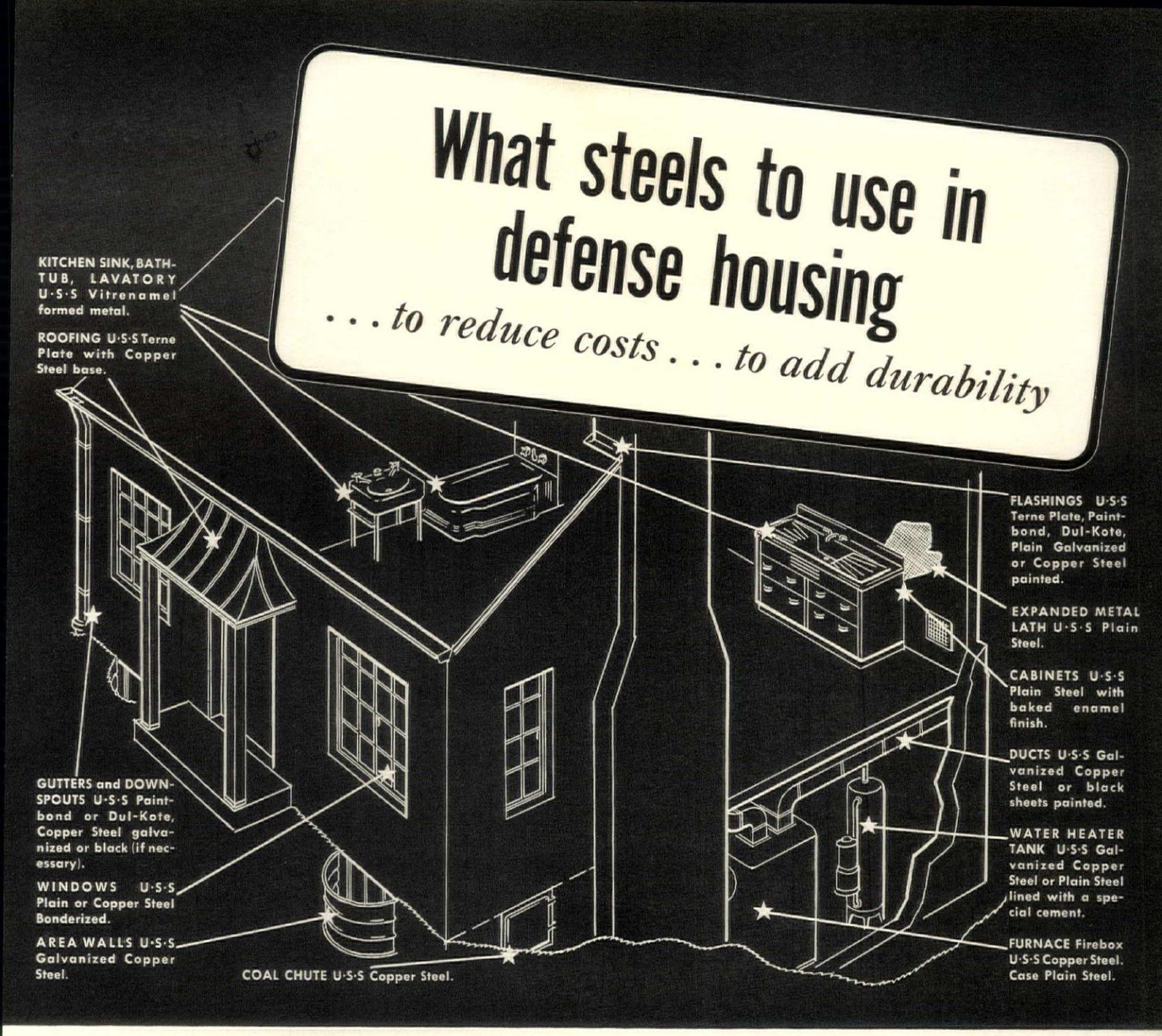
WILLIAM H. WHEELOCK, 66, for many years one of the leading real estate dealers in the country, and at his death chairman of the board of Brown, Wheelock, Harris, Stevens, Inc. of New York City. Mr. Wheelock's brokerage and leasing activities made possible some of the largest transactions in New York real estate history. Under his guidance the needed properties were assembled for the present sites of Pennsylvania Station, the Central Post Office, Grand Central Terminal, the Waldorf-Astoria, the New York Hospital units and many other large projects. Mr. Wheelock was born in New York, attended the Cutler School and was graduated from Harvard College in 1898. He was associated with numerous insurance companies and banking houses and was for many years a member of the board of governors of the Real Estate Board of New York.

CHARLES F. WOOD, 55, retired construction engineer. Mr. Wood helped build the Pulaski Skyway in New Jersey and was for many years operations engineer of the Mexico Light and Power Company. He was born in Jersey City, N. J., and was graduated from Stevens Institute of Technology.

CLARENCE H. BLACKALL, Architect, 85. Born in New York, Mr. Blackall was graduated from the University of Illinois in 1877, and later studied architecture at the Ecole Des Beaux Arts, Paris. Credited with erecting the first steel frame building in Boston, Mr. Blackall specialized in theaters, hotels and office buildings. He was one of the founders and first president of the Boston Architectural Club and a founder and first secretary of the New York Architectural League.

What steels to use in defense housing

. . . to reduce costs . . . to add durability



MANY types of steel are being made that actually double, triple, or quadruple the life of products made from them. Others permit lighter construction of sinks, lavatories, bathtubs, furnaces, and thus save much needed iron ore.

Properties and advantages of various U·S·S Steels

1. U·S·S Copper Steel—2 to 3 times the corrosion resistance of plain steel. Low cost. Can be used black or galvanized for gutters, downspouts, valleys, flashings, duct work, coal chutes, garbage receptacles.

2. U·S·S Copper Steel for furnaces — Saves considerable metal, has high resistance to smoke corrosion, maintains a tight fire box, gives a long, satisfactory service. Low cost.

3. U·S·S Copper Steel for hot water tanks — Galvanized or plain steel, lined with cement. The cement-lined tank is rapidly replacing alloyed metals now difficult to get.

4. U·S·S Paintbond—A galvanized Bonderized Steel. Permits immediate painting. Paint holds tighter, lasts longer. Highly recommended for all outdoor uses, such as gutters, downspouts, complete metal buildings for army camps, airplane hangars, air-raid shelters, industrial plants.

In the South and West, U·S·S Dul-Kote with similar properties to Paintbond is available. Only the method of manufacture is different.

5. U·S·S Vitrenamel — For formed bathtubs, lavatories, sinks. Takes a superior porcelain finish, decreases the amount of metal in the fixtures, makes dimensions more uniform for mass housing projects, equals the life of other porcelain enamel. Lower cost.

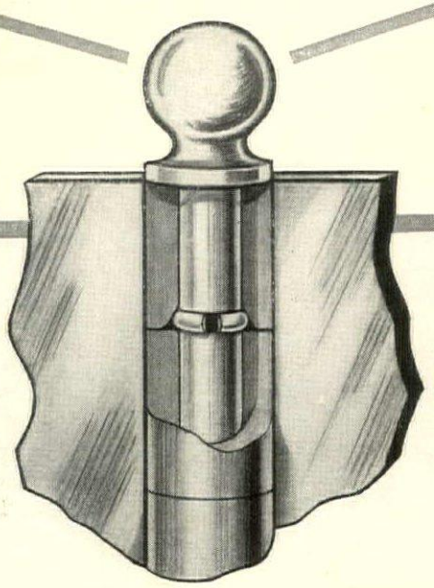
U·S·S STEEL SHEETS

CARNEGIE-ILLINOIS STEEL CORPORATION, *Pittsburgh and Chicago*
COLUMBIA STEEL COMPANY, *San Francisco*
TENNESSEE COAL, IRON & RAILROAD COMPANY, *Birmingham*

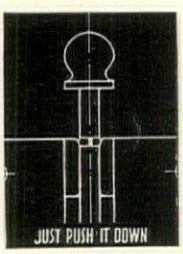
Scully Steel Products Company, Chicago, *Warehouse Distributors*
United States Steel Export Company, New York

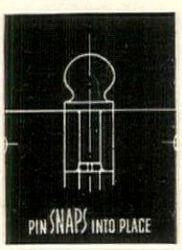
UNITED STATES STEEL

SNAPS IN... STAYS IN



The New Stanley Non-Rising Pin





The greatest advance in hinge construction in 40 years! A simple, positive, dependable method of keeping butt pins in place.

The non-rising feature is secured by a split ring attached in a groove in the pin. As the pin is seated, the ring expands into a pocket at the bottom of the top knuckle of the butt. No ears to line up . . . no twisting or turning . . . no pliers. It can't rise, yet is easily withdrawn.

A TIME-SAVER IN SPECIFYING HARDWARE! WRITE FOR IT!

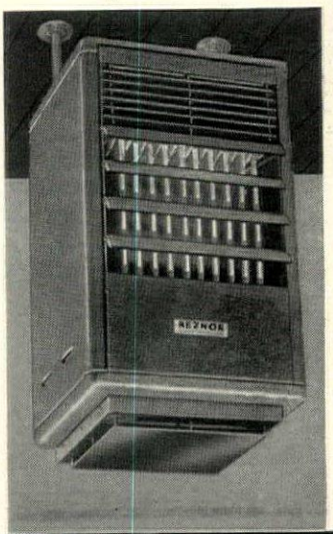


Catalog No. 61, showing all the many hardware types and lines available from Stanley, will be invaluable as a reference book. Write for a copy, and use it as your guide to good hardware. The Stanley Works, New Britain, Connecticut.

STANLEY
TRADE MARK
HARDWARE

REZNOR
GAS FIRED UNIT HEATERS

for "ALL OUT" INDUSTRIES



SAVE days and sometimes weeks in installation time by installing Reznor Suspended Gas Unit Heaters. The units are available and ideal for alterations and construction of defense factories. Only a gas line and electricity are required. Compared with cast radiation systems, they use 89% less vital materials. This alone means less delay. Send for catalog of Reznor's complete line NOW.

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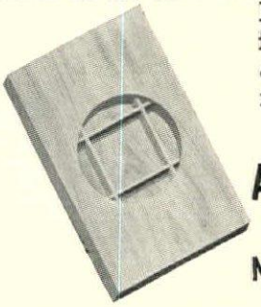
"GAS HEATERS EXCLUSIVELY SINCE 1888"



Middletown Housing Project. Geo. Howe, Architect

FOR Defense BUILDING!

The fact you are designing or building small homes, or home-units in defense areas, should be sufficient reason for using New Londoner Hollow-Core Flush Doors. New Londoners have exceptionally brilliant service records everywhere—records that reveal low cost-per-years-of-service. This is the type of door you will want to recommend so be sure to get the story of New Londoner Hollow-Core Flush Doors. You'll find it interesting as well as enlightening. Send for this information today.



AMERICAN PLYWOOD Corporation
NEW LONDON, WISCONSIN

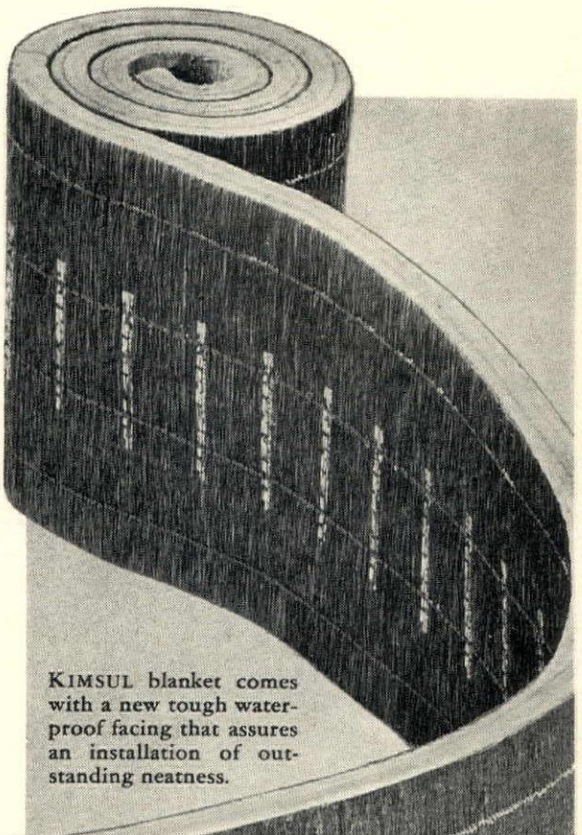
KIMSUL INSULATION Saves Metals and Man-Hours for War Effort *while it "Comfort-Conditions" Homes!*

■ Smaller-capacity heating equipment often gives adequate winter comfort in homes which are insulated with KIMSUL*—because KIMSUL is one of the most effective barriers to heat waste known to science. Thus, when you build homes "Comfort-Conditioned" with KIMSUL you save on metals needed for the war effort... you save on the cost of heating equipment...you assure home owners of years of greater comfort and fuel economy. Specify KIMSUL to stop heat waste in homes you build! KIMSUL's thermal conductivity is only .27 Btu/hr./sq. ft./deg. F./in. (Peebles).

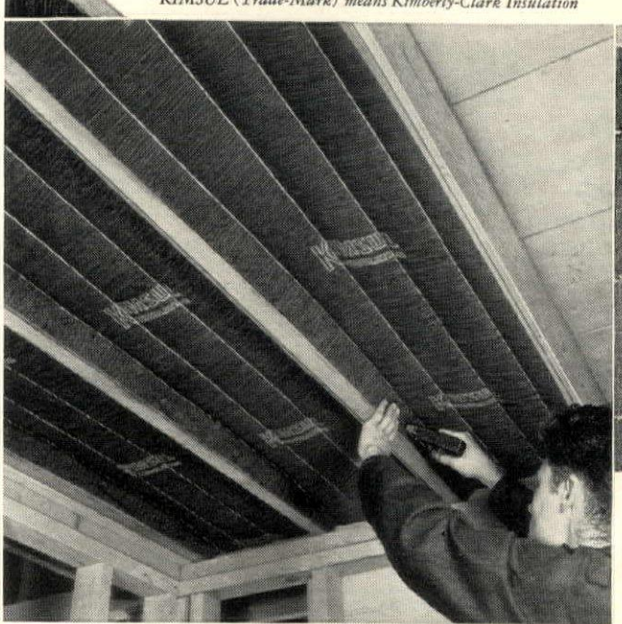
On the job, KIMSUL blanket saves valuable man-hours. KIMSUL is flexible, light in weight and easy to handle. And unlike any other insulation, KIMSUL comes compressed to *less than one-fifth its installed footage* — an exclusive KIMSUL feature that does much to conserve freight facilities, tires and trucking equipment.

Facts about KIMSUL are given in an interesting book, *"A New Improved KIMSUL Insulation."* Send for your FREE copy now!

**KIMSUL (Trade-Mark) means Kimberly-Clark Insulation*



KIMSUL blanket comes with a new tough waterproof facing that assures an installation of outstanding neatness.



SAVES INSTALLATION MAN-HOURS

Even in spots like this, KIMSUL blanket is quickly and easily installed. And once properly installed, KIMSUL "stays put." Supporting rows of strong stitching run lengthwise through each KIMSUL blanket to guard against sagging, sifting or settling. Here's assurance of long-lasting insulation effectiveness!

KIMBERLY-CLARK CORPORATION
(Building Insulation Division)
Established 1872
Neenah, Wisconsin

AF-442

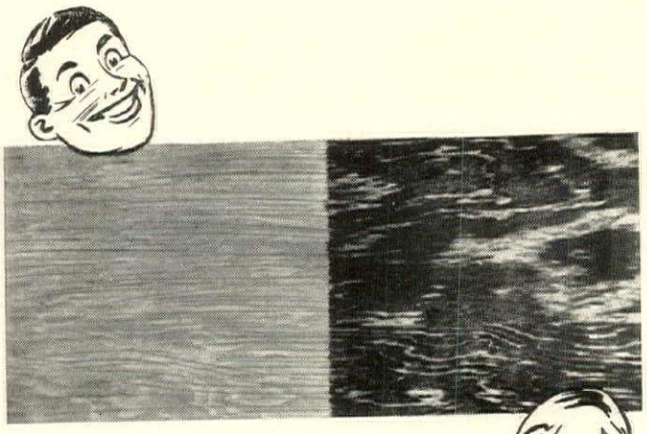


☐ Send a representative.
☐ Send copy of FREE booklet, "A NEW IMPROVED KIMSUL INSULATION" to

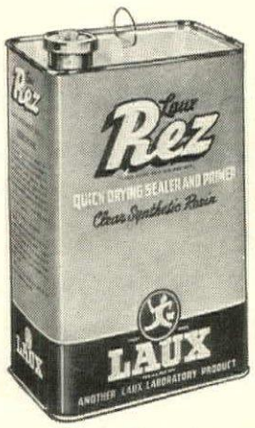
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Control GRAIN RAISE with Laux REZ

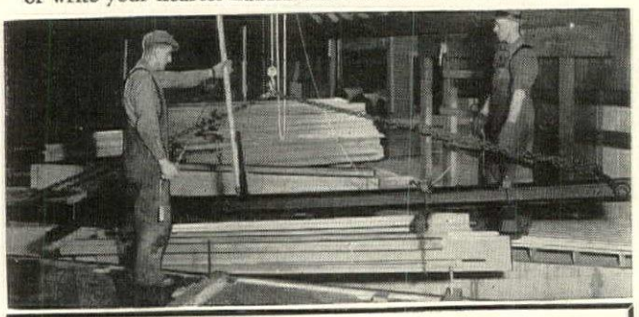


TRADE MARK REG. U. S. PAT. OFF

FIRST step in beautiful wood finishing . . . as well as wood preservation . . . is an application of Laux REZ, synthetic resin sealer and primer. On plywood, millwork, sash, doors, flooring . . . on fir, cedar, pine, redwood, etc., or even hardwood . . . the same rule applies.

Laux REZ *penetrates* into the wood, leaving a resin deposit on cell walls. This deposit acts as a scientific barrier to the destructive action of atmospheric moisture . . . which means control of grain raise, swelling and binding.

Apply REZ with brush, spray or saturated cloth. It dries quickly. Lumber, paint, or hardware dealers can supply REZ or write your nearest Laucks office for full information.



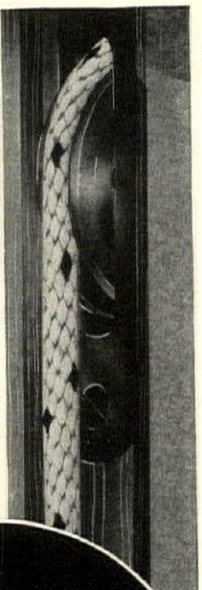
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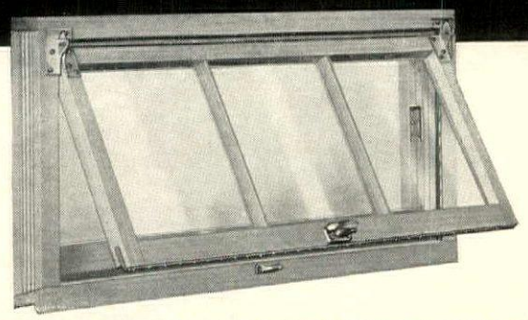
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ANDERSEN COMPLETE WOOD BASEMENT WINDOW UNIT

- Complete, prefabricated, pre-fitted basement window unit; carton packed—all set up, glazed, weatherstrip and hardware applied—ready for speedy installation.
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Andersen Corporation BAYPORT, MINNESOTA

INSULATION *Simplified* WITH 3 FORMS OF ZONOLITE

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Zonolite Granular Fill is naturally permanent. 100% mineral: fire-proof, rot-proof, vermin-proof, moisture-resistant. Fast, easy installation . . . packs as it pours . . . no nailing . . . no cutting . . . no fitting . . . no waste. Extremely high thermal efficiency. Valuable on attic floors as protective barrier to downward spread of fire bombs.

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Zonolite All-Purpose Plaster Aggregate is clean and easy to mix and apply . . . 12½ times lighter than sand, with 5 times more insulating value. Non-freezing . . . crack-resistant . . . readily nailable.

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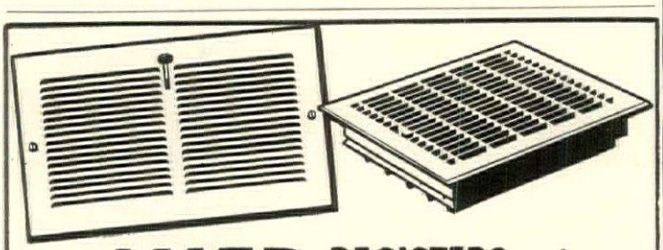
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PERMANENT AS THE EARTH ITSELF

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Plants in Principal Cities

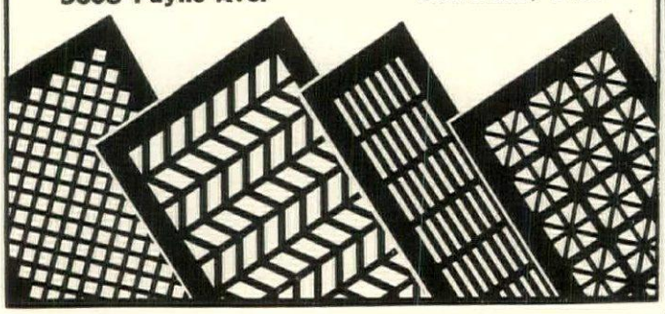
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. . . send today for catalog of controls that combine accuracy with structural features particularly designed for heavy-duty applications.

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PITTCO STORE FRONT PRODUCTS ARE STILL AVAILABLE

ARCHITECTS everywhere who have standardized for years on Pittco Store Front Products for the execution of their store front designs, have asked us more and more frequently in recent months, "Can we still get Pittco Products?"

The answer is "yes." You can still get Pittco Products promptly. Carrara Structural Glass, Polished Plate Glass, Herculite Doors, Pittsburgh Mirrors, Tapestry Glass, PC Glass Blocks and Architectural Glass. And an adequate selection of bronze and aluminum Pittco Store Front Metal shapes is still available for use in Pittco Fronts, although in the interests of national defense and conservation of metals, we have voluntarily reduced the number and variety of Pittco shapes we make.

So there's no reason for lowering the high standards of store front design which Pittco Products have helped you to establish. No need to be satisfied with anything less than the best in store front materials.

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THIS SMART-LOOKING PITTCO FRONT *in Philadelphia, Pa., has been instrumental in attracting patrons from all over town, according to J. N. Alexander, proprietor. Architect: George W. Neff.*



PITTCO STORE FRONTS
PITTSBURGH PLATE GLASS COMPANY
"PITTSBURGH" stands for Quality Glass and Paint

Pittsburgh Plate Glass Company
2237-2 Grant Building, Pittsburgh, Pa.

Please send me, without obligation, your new, illustrated booklet, "Pittco Store Fronts—and Their Influence on Retail Sales."

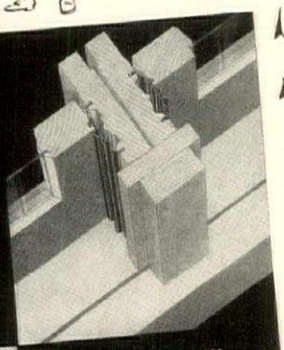
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"defense"
for existing American homes as well as new defense housing with . . .
Superior
unit windows



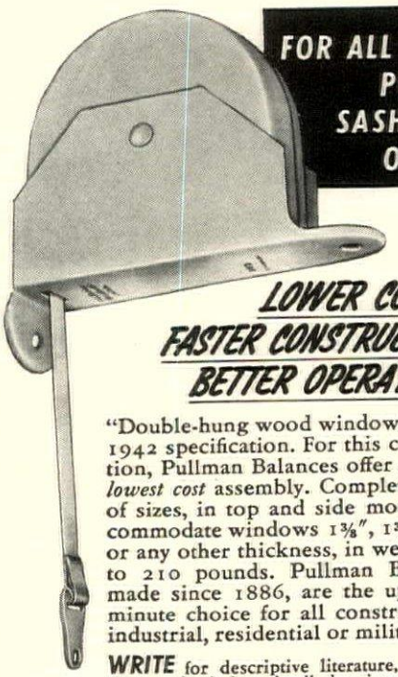
Section thru Mullion: Sturdy jambs—Spring Cushion weatherstrip—Sash easily removed completely from frame.

BILT-WELL WOOD WORK

For a better defense against client dissatisfaction in Remodeling—Modernization and Repair as well as New Defense construction, specify "Superior" windows. They are prefitted units, ready to install, completely weatherstripped at the factory. The exclusive design (Spring Cushion) jamb liner type weatherstripping automatically compensates for all possible swelling or shrinking in width or thickness. For further information consult Sweet's Catalog, file 15/22 or write:

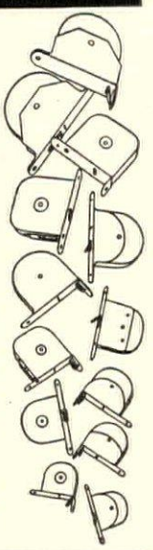
CARR, ADAMS & COLLIER COMPANY
DEPARTMENT 4 AF • DUBUQUE, IOWA

FOR ALL 1942 BUILDING PULLMAN SASH BALANCES OFFER . . .



LOWER COST
FASTER CONSTRUCTION
BETTER OPERATION

"Double-hung wood windows" is the 1942 specification. For this construction, Pullman Balances offer *quickest, lowest cost* assembly. Complete range of sizes, in top and side models, accommodate windows 1⅜", 1¾", 2¼", or any other thickness, in weights up to 210 pounds. Pullman Balances, made since 1886, are the up-to-the-minute choice for all construction—industrial, residential or military.



WRITE for descriptive literature, specifications and window detail drawings. Pullman Manufacturing Corporation, Dept. B-4, 1170 University Ave., Rochester, N. Y.

Specify Window Units with
PULLMAN Sash Balances

UNION METAL STEEL BRIDGING



CUTS INSTALLATION TIME ⅓ TO ½. Contractors report that Union Metal bridging saves from 30% to 50% installation time over conventional wood bridging. It comes in conveniently carried cartons, is easy to install and will not split.

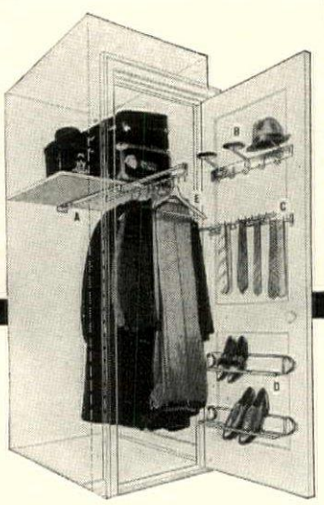
REDUCES NAIL COSTS. You use 1" or 1¼" roofing nails instead of the 8-d nails generally used for wood bridging.

IMPROVES FLOOR CONSTRUCTION. Union Metal Bridging decreases floor deflection and vibration more effectively. It will not contract or expand in changing temperature. Cannot rot and makes for improved appearance.

Union Metal Steel Bridging is available in lengths to fit all regular joist sizes and spacings. Write for descriptive folder and prices.

THE UNION METAL MANUFACTURING CO.
CANTON, OHIO

do you know
MRS. AMERICA'S PET HOUSEHOLD PEEVE ?



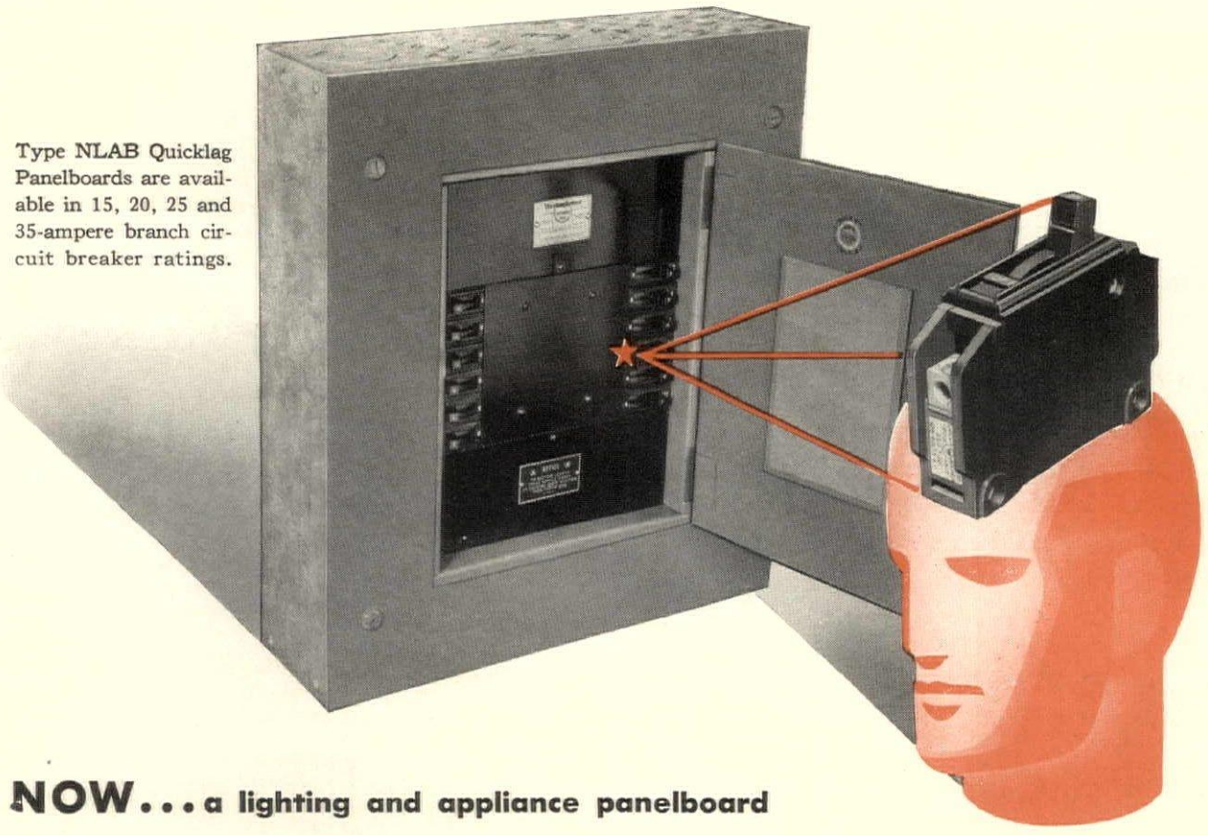
IN brief, it's lack of adequate closet space. K-Venience fixtures easily solve this problem . . . without the need of adding cubage . . . in new houses and old . . . at almost negligible cost. K-Veniences make the most of any closet size or shape, in many cases actually double useable capacity and provide a handy place for all apparel. Chrome finished, beautifully made, they are really useful fixtures your clients will praise you for many times over.

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New K-Venience catalog with space-saving closet plans and ideas.

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Type NLAB Quicklag Panelboards are available in 15, 20, 25 and 35-ampere branch circuit breaker ratings.

NOW... a lighting and appliance panelboard

that "thinks" faster!

The new Westinghouse QUICKLAG Panelboard has what we call "judgment" —good "common sense." Like all Westinghouse "De-ion" lighting panelboards, each breaker can tell the difference between a momentary, harmless overload and a positive short circuit—but the Quicklag reacts to a short circuit FASTER!

It's "quick!" When a short circuit occurs, magnetic trip action alone actuates the breaker.

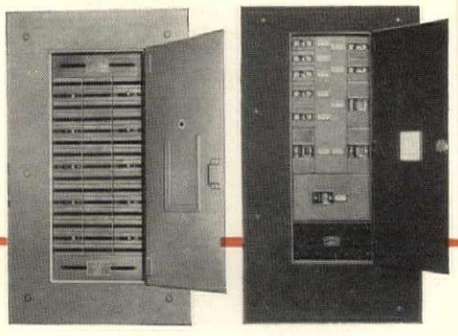
It "lags!" On harmless momentary current overloads, such as motor starting, the Bi-metal protection prevents unnecessary service interruptions. But if the overload continues past a safe point, the circuit is promptly interrupted.

This new Westinghouse development is known as co-operative thermal-magnetic trip action. But when you specify, just say "Quicklag." You'll be assured of maximum protection for lighting and appliance circuits without needless interruptions and resettings. There's a Westinghouse Agent near you. Call on him for help in your circuit protection problems. Westinghouse Electric & Manufacturing Company, East Pittsburgh, Pa., Dept. 7-N. J-60496

Two other Westinghouse panelboards featuring Type AB "De-ion" breakers are:

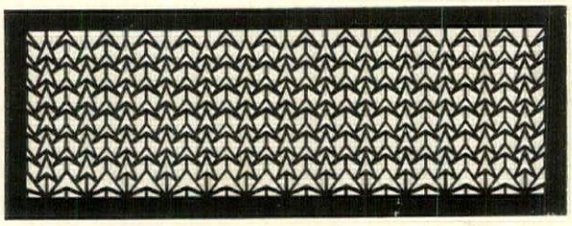
LOW-CAPACITY DISTRIBUTION PANELBOARD—designed for low capacity power and lighting applications having branch circuits not exceeding 50 amperes each. For 230-volt A-C systems.

CONVERTIBLE TYPE —for distribution of light and power service, 15 to 600 amperes. For 250-volt systems, A-C or D-C, and 600-volt A-C systems. Permits maximum convertibility.



Westinghouse

NOFUZE CIRCUIT PROTECTION



THE POPULAR FIR

One of the most frequently specified grilles among the more than one hundred designs illustrated in the Hendrick Grille Book is The Fir. With an open area of 50%, The Fir is as practical as it is pleasing.

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Offices and Representatives in principal cities. See 'phone book. Mfrs. of Mitco Open Steel Floorings, Mitco Shur-Site Treads and Mitco Armorgrids, Hendrick Perforated Metals and Screens.

TURQUOISE *Smoothness is Sealed In*



AND THE *SEAL* IS AS VITAL AS THE LUBRICANT. Just as the smoothness of your car would vanish if oil drained from gears and bearings, so does the smoothness of the ordinary drawing pencil disappear with the seepage of its lubricating waxes from lead to wood. In TURQUOISE, this seepage is prevented by an impervious coating deposited on the lead by a patented process. The waxes stay *in the lead,* and TURQUOISE stays *permanently smooth.*

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to add to the life of combination doors

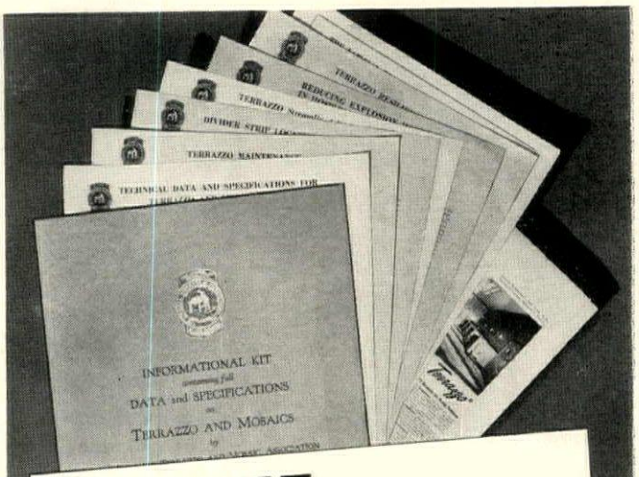
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Seal of Approval — The Identification of a Product Meeting N. D. M. A. Preservative Minimum Standards

LICENSE NO. 000 TOXIC—PRESERVATION APPROVED NATL. DOOR MFRS. ASSN.

FOR FURTHER INFORMATION SEE OUR CATALOG IN SWEET'S



*FREE complete working kit on TERRAZZO

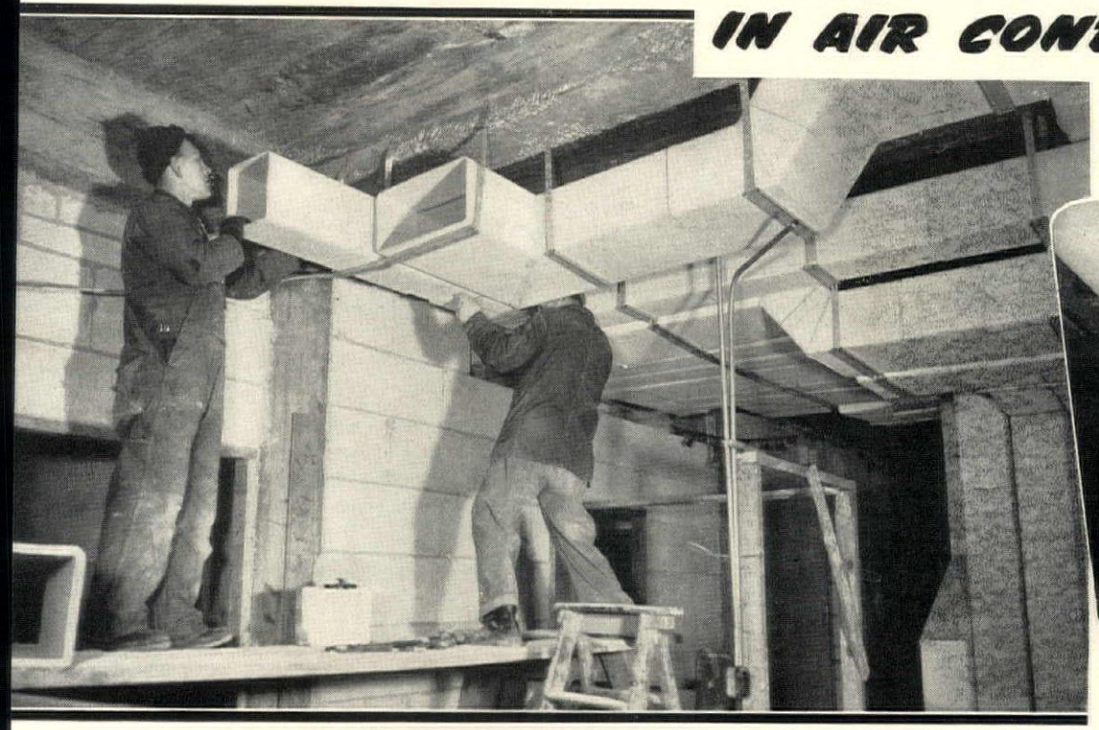
• HOW to specify terrazzo, where to use it, reducing explosion hazards and the results of comparative resiliency tests—these and many other important details and technical data are at your finger-tips when you have one of these Informational Kits on Terrazzo.

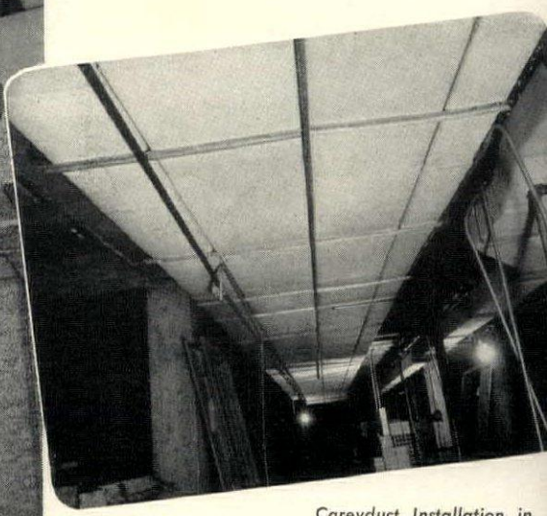
NO PRIORITY headaches. All materials used in terrazzo are priority-free—that is if you specify plastic or composition divider strips. So add terrazzo to your list of building materials that entail no priority trouble. Use terrazzo for remodeling as well as new work.

The Informational Kit shown above is the terrazzo reference you've always wanted—and it's yours now at no charge. Where shall we send your copy?

THE NATIONAL TERRAZZO & MOSAIC ASSOCIATION
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Eliminate METAL DUCTS IN AIR CONDITIONING



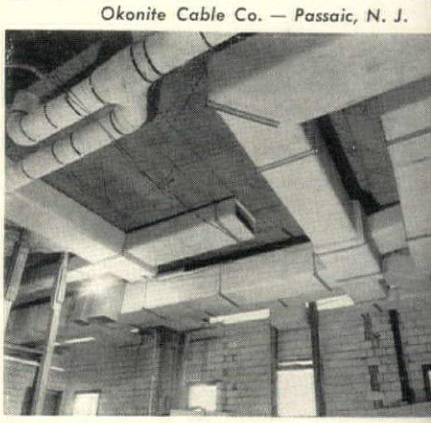


Careyduct Installation in new Greyhound Bus Station — Cincinnati, Ohio

Specify Careyduct



Okonite Cable Co. — Passaic, N. J.



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St. Peter & St. Paul Church — Norwood, Ohio

EVEN before the war curtailed the use of metal, CAREYDUCT had won an enviable position in the air conditioning industry for its many outstanding advantages over insulated steel duct. Under present conditions, the fullest utilization of this all-asbestos duct is more essential than ever. In a recent job, 100 carloads of CAREYDUCT saved many tons of steel.

It has been demonstrated in hundreds of installations that the use of CAREYDUCT means greater efficiency . . . quieter operation . . . lower friction . . . lighter weight . . . easier installation . . . and actually *lower cost* than insulated metal.

CAREYDUCT is a natural sound absorber and non-conductor of sound. It hushes fan noises; reduces outside noise; eliminates metallic "cracking"; by effectively subduing noise, it allows use of smaller sizes with higher velocities; solves many difficult problems where space is limited. Steel will help win battles. By specifying CAREYDUCT you conserve steel and insure better air conditioning. Write for full information. Address Dept. 20.

CAREYDUCT is the all-asbestos duct—factory-fabricated—duct and insulation combined in strong, rigid FIREPROOF units . . .

CAREYDUCT is non-rusting, permanent.
Eliminates shop fabrication. Simple slip-joint construction and standardized parts make fitting on job easy and economical.

THE PHILIP CAREY MFG. COMPANY • Lockland, Cincinnati, Ohio
Dependable Products Since 1873
IN CANADA: THE PHILIP CAREY COMPANY, LTD. Office and Factory: LENNOXVILLE, P. Q.

Defense Savings Pay-Roll Allotment Plan

How company heads can help their country, their employees, and themselves

voluntary pay-roll allotment plan | helps workers provide for the future | helps build future buying power | helps defend America today

This is no charity plea. It is a sound business proposition that vitally concerns the present and future welfare of your company, your employees, and yourself.

During the post-war period of readjustment, you may be faced with the unpleasant necessity of turning employees out into a confused and cheerless world. But you, as an employer, can do something *now* to help shape the destinies of your people. Scores of business heads have adopted the Voluntary Pay-roll Allotment Plan as a simple and easy way for every worker in the land to start a *systematic* and *continuous* Defense Bond savings program.

Many benefits . . . present and future. It is more than a sensible step toward reducing the ranks of the post-war needy. It will help spread financial participation in National Defense among all of America's wage earners.

The widespread use of this plan will materially retard inflation. It will "store" part of our pyramiding national income that would otherwise be spent as fast as it's earned, increasing the demand for our diminishing supply of consumer goods.

And don't overlook the immediate benefit . . . money for defense materials, quickly, continuously, *willingly*.

Let's do it the American way! America's talent for working out emergency problems, democratically, is being tested today. As always, we will work it out, without pressure or coercion . . . in that old American way; each businessman strengthening his *own* house; not waiting for his neighbor to do it. That custom has, throughout history, enabled America to get things done *of its own free will.*

In emergencies, America doesn't do things "hit-or-miss." We would get there *eventually* if we just left it to everybody's whim to buy Defense Bonds when they thought of it. But we're a nation of businessmen who understand that the way to get a thing done is to *systematize* the operation. That is why so many employers are getting back of this Voluntary Savings Plan.

Like most efficient systems, it is amazingly simple. All you have to do is offer your employees the convenience of having a fixed sum allotted, from each pay envelope, to the purchase of Defense Bonds. The employer holds these funds in a separate bank account, and delivers a Bond to the employee each time his allotments accumulate to a sufficient amount.

Each employee who chooses to start this savings plan decides for himself the denomination of the Bonds to be purchased and the amount to be allotted from his wages each pay day.

How big does a company have to be? From three employees on up. Size has nothing to do with it. It works equally well in stores, schools, publishing houses, factories, or banks. This whole idea of pay-roll allotment has been evolved by businessmen in cooperation with the Treasury Department. Each organization adopts its own simple, efficient application of the idea in accordance with the needs of its own set-up

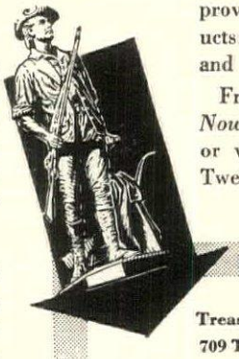
No chore at all. The system is so simple that A. T. & T. uses exactly the same easy card system that is being used by hundreds of companies having fewer than 25 employees! It is simple enough to be handled by a check-mark on a card each pay day.

Plenty of help available. Although this is *your* plan when you put it into effect, the Treasury Department is ready and willing to give you all kinds of help. Local civilian committees in 48 States are set up to have experienced men work with you just as much as you want them to, and no more.

Truly, about all *you* have to do is to indicate your willingness to get your organization started. We will supply most of the necessary material, and no end of help.

The first step is to take a closer look. Sending in the coupon in no way obligates you to install the Plan. It will simply give you a chance to scrutinize the available material and see what other companies are already doing. It will bring you samples of literature explaining the benefits to employees and describing the various denominations of Defense Savings Bonds that can be purchased through the Plan.

Sending the coupon does nothing more than signify that you are anxious to do *something* to help keep your people off relief when defense production sloughs off; *something* to enable *all* wage earners to participate in financing Defense; *something* to provide tomorrow's buying power for your products; *something* to get money *right now* for guns and tanks and planes and ships.



France left it to "hit-or-miss" . . . and *missed. Now* is the time for *you* to act! Mail the coupon or write Treasury Department, Section A, 709 Twelfth St. NW., Washington, D. C.

FREE - NO OBLIGATION

Treasury Department, Section A,
709 Twelfth St. NW., Washington, D. C.

Please send me the free kit of material being used by companies that have installed the Voluntary Defense Savings Pay-Roll Allotment Plan.

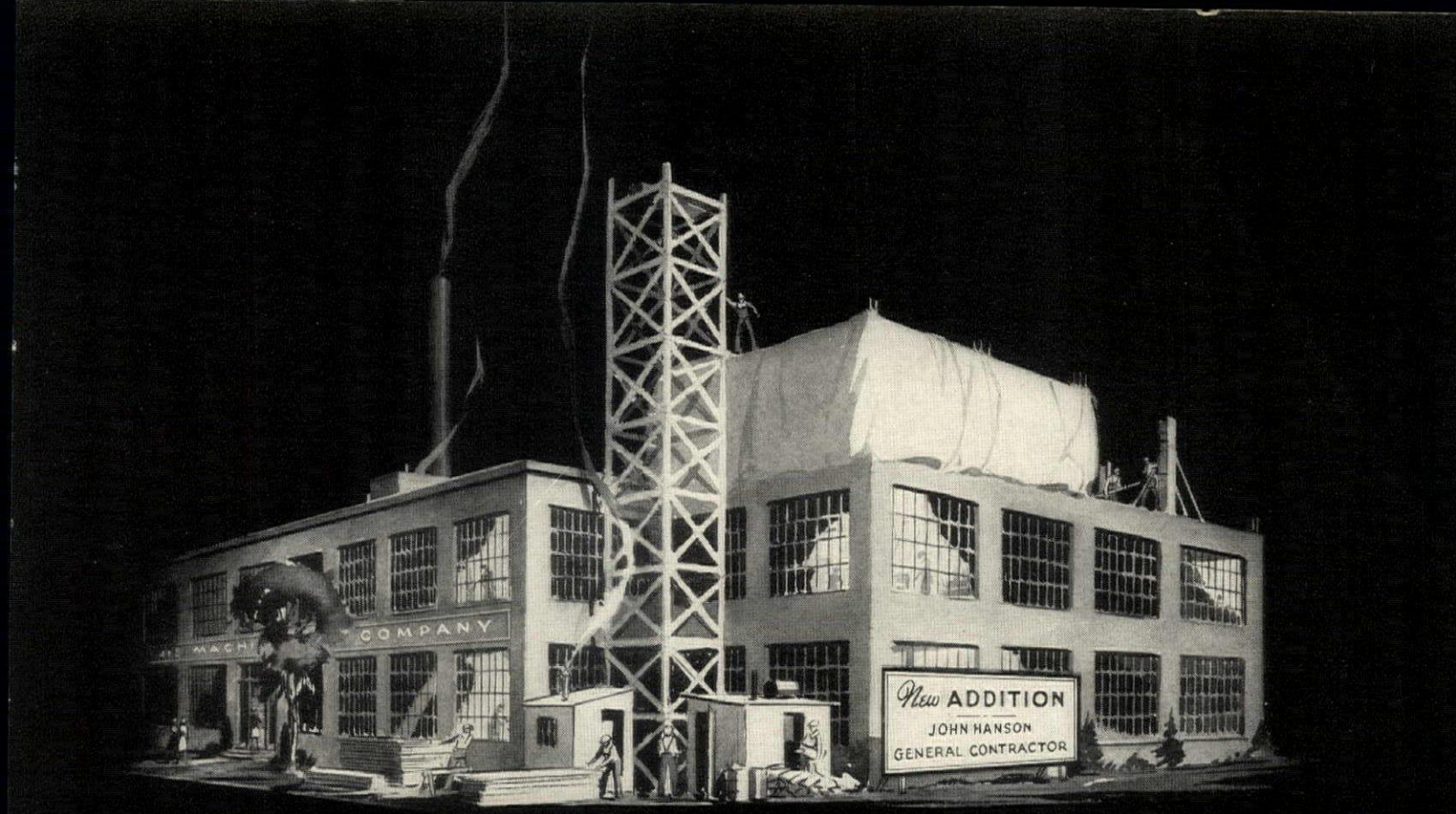
Name _____

Position _____

Company _____

Address _____

GPO 42N498



PLANT CONVERSION TO *War Production* DEMANDS EFFICIENT HEATING

WHEN you convert your present plant for all out war production, or build a new plant, remember that faster production and conservation of raw materials, demand efficient heating. Efficient heating and processing mean automatic control, with its elimination of waste. Automatic control means healthful and efficient working conditions. Healthy and happy employees are the best producers. Proper process control makes better products faster. Minneapolis-Honeywell Regulator Co., 2740 Fourth Ave. South, Minneapolis, Minnesota. Branches located in 49 cities.

MINNEAPOLIS-HONEYWELL

CONTROL *Systems*

SPECIFICATION AND BUYING INDEX

The advertising pages of THE ARCHITECTURAL FORUM have become the recognized market place for architects and all others engaged in building. Each month these pages offer the most complete guide to materials, equipment and services to be found in any magazine. A house or any other building could be built completely of products advertised in THE FORUM. While it is not possible for a magazine to certify building products, it is possible to open its pages only to those manufacturers whose reputation merits confidence. This THE FORUM does.

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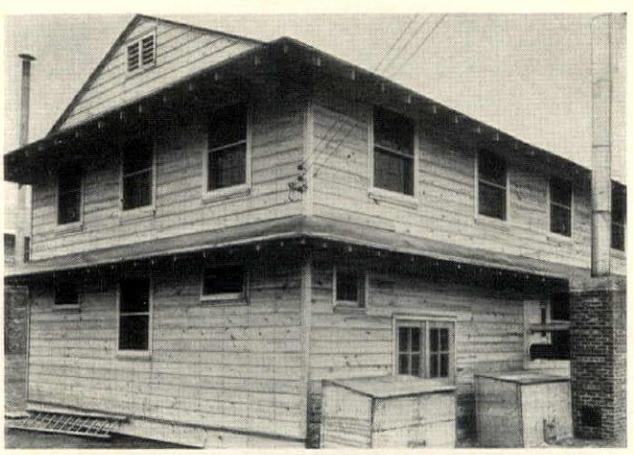
You'll find many uses for ARMCO Ingot Iron in war construction



AT THE NEW *Bell Aircraft plant the entire area surrounding the 195-foot canopy door is covered with gleaming panels porcelain enameled on* ARMCO *Ingot Iron. The company name is done in blue on a buff background. Enameler: Erie Enameling Co. Engineers: The Austin Co.*



THIS AIR-RAID SHELTER *seating 30 persons is made of* ARMCO *Multi Plate, a heavy corrugated steel originally designed for highway bridge arches. While not yet supplied for civilian use, many have been provided for ammunition storage magazines and other purposes.*



THESE U. S. ARMY BARRACKS *are equipped with galvanized* ARMCO *Ingot Iron termite shields between the concrete foundations and frame construction; also with flue pipes, smoke jacks and stacks of the same enduring metal.*

MANY private architects are helping the nation to create attractive housing projects and efficient war plants.

For much of the sheet metal work ARMCO Ingot Iron has been specified. This durable metal is being used for the roofing and siding of airplane hangars and munition buildings, for flue pipes in barracks, for the roof-drainage systems of government housing projects, and for ventilators and air-conditioning ductwork in war plants.

ARMCO Ingot Iron has the longest service record of any low-cost iron or steel sheets. Installations that date back to 1909 are in good condition today. It lowers maintenance costs.

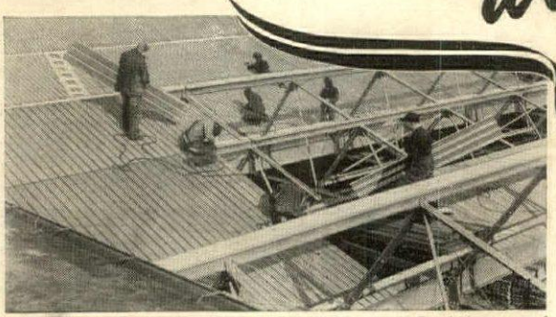
Like other critical materials, ARMCO Ingot Iron is "in the service." But you'll want to use it where you can, on high priority projects, and remember it for after the war. Shall we send you helpful data on this or other ARMCO building metals? The American Rolling Mill Company, 1081 Curtis St., Middletown, Ohio.

The ARMCO *triangle trademark is branded three times on every sheet of galvanized* ARMCO *Ingot Iron —for your protection. Your clients have learned from experience, and from* ARMCO'S *28 years of national advertising, that this symbol stands for the utmost durability and long-term economy.*



SPEED THE K.O. OF TOKYO—

...get war plants under cover fast.. and into production quickly— with MILCOR Roof Deck



★ Typical of the speed with which Milcor Roof Deck is erected is this installation on a Kearney & Trecker Corp. addition (Milwaukee, Wis.) where over 70,000 sq. ft. of deck were laid — some of it in 15-below-zero weather—in only 110 working hours.

SPEED Milcor Roof Deck can be erected anytime — no waiting for the weather. Unique design enables erector to nest sections with amazing speed.

FIRE SAFETY Regardless of whether fire is of interior or exterior origin, Milcor Roof Deck is an effective fire barrier.

ADAPTABILITY Milcor Roof Deck is quickly attached — clipped or welded — to any structural member, on either small or large scale construction.

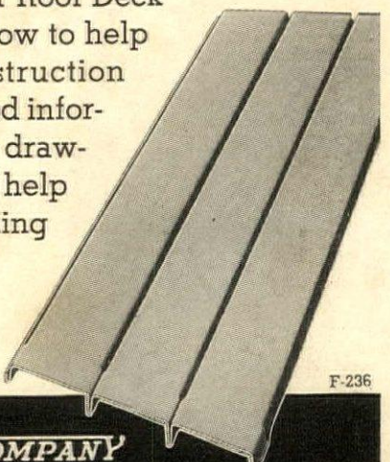
LOW COST Milcor Roof Deck eliminates the cost of heavy super-structures.

INSULATION Milcor Roof Deck adaptable to any standard type of insulation. Smooth deck permits easy application.

Milcor is ready to supply your war requirements now — *in record time*

Milcor Roof Deck is a practical, versatile material that offers advantages you can't afford to overlook now, when clients rely on you to coordinate plant expansion with rush war production schedules . . . Free, colorful catalog gives facts about Milcor Roof Deck that you should have now to help you meet today's construction problems. Gives detailed information, complete with drawings and illustrations, to help save your time in planning and designing.

Write for it today.



F-236

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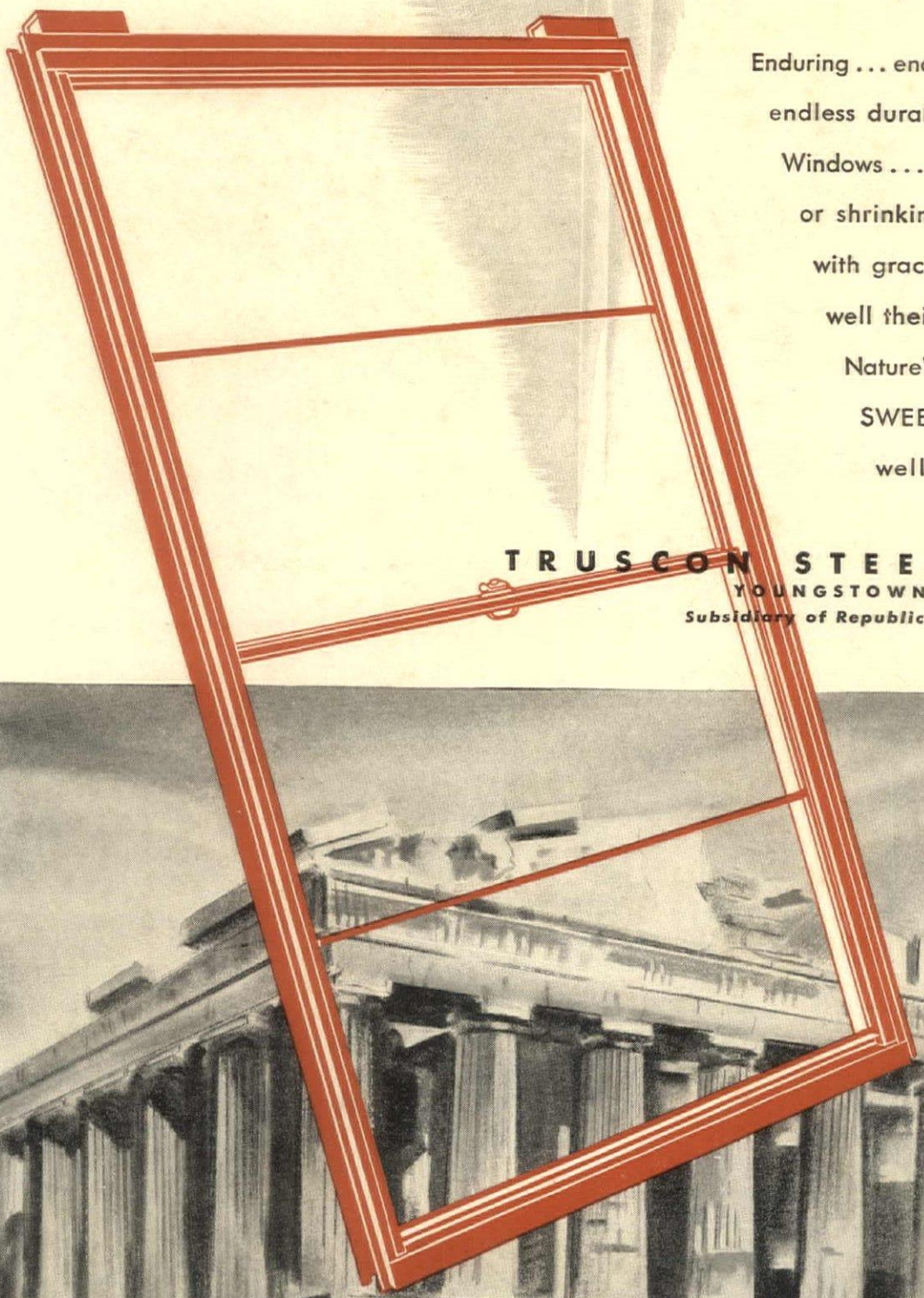
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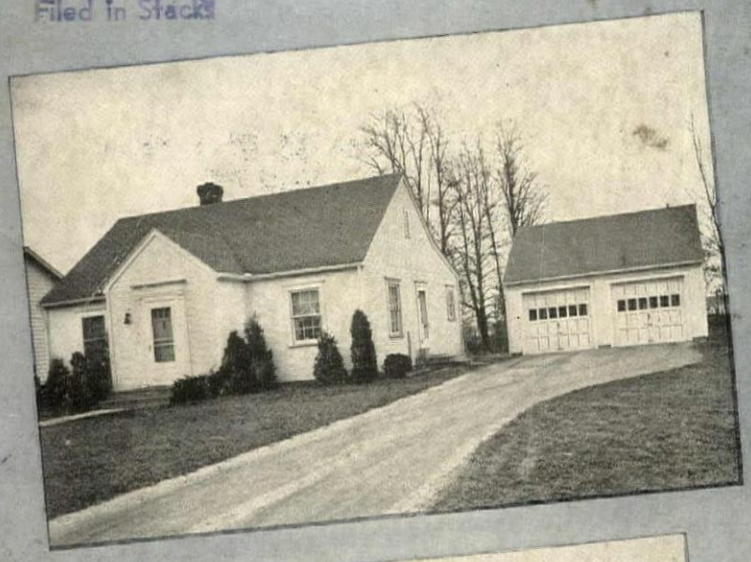
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Enduring . . . enduring . . . the seemingly endless durability of Truscon Steel Windows . . . never rotting, warping or shrinking . . . always serving with graceful utility . . . serving well their function of admitting Nature's gifts of air and light. In SWEET'S you will find how well they can serve you.

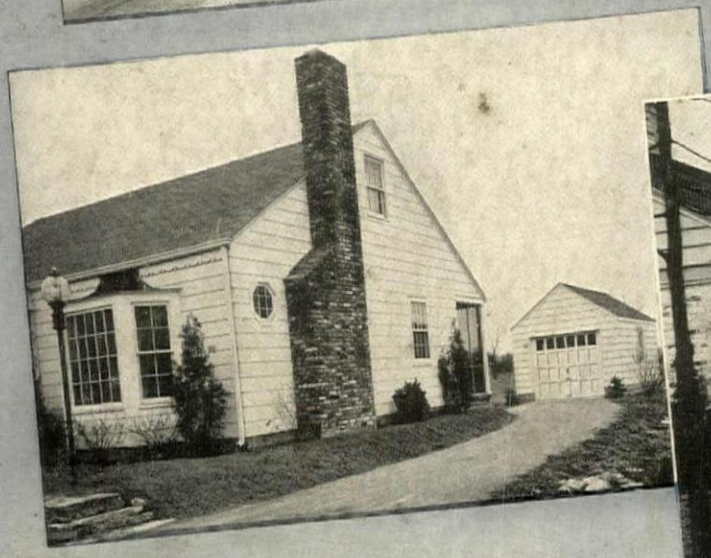
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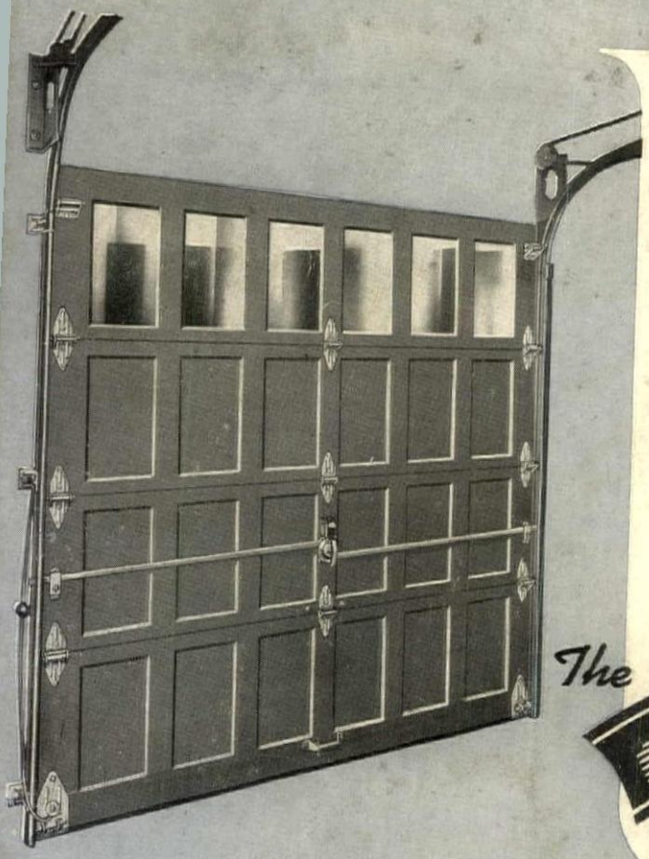


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Easy Operation and Lasting Service!

Homes equipped with The "OVERHEAD DOOR" with the Miracle Wedge will have greater sale or rental value when normal times return. Specify this quality garage door for every home, large or small.

Because of this same easy operation and lasting service, "OVERHEAD DOORS" are used extensively in Army, Navy and Marine buildings, and in defense industrial construction.

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BY A
NATION-WIDE SALES-INSTALLATION-SERVICE

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